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HARVARD UNIVERSITY



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OF EDUCATION**

PROCEEDINGS

Twenty-Second Annual Session

OF THE

North Dakota Educational
Association

Held at Valley City, December 30 and 31, 1908
and Jan. 1, 1909.

Published by legislative enactment under direction of the Department
of Public Instruction, State of North Dakota.

BISMARCK, N. D.
TRIBUNE, STATE PRINTERS AND BINDERS
1909

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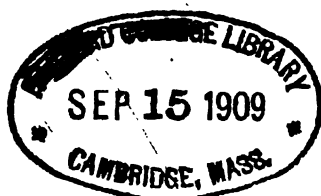
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LETTER OF TRANSMITTAL

Hon. W. L. Stockwell, State Superintendent of Public Instruction, Bismarck, North Dakota:

DEAR SIR: I have the honor to submit to you this volume of the proceedings of the twenty-second annual meeting of the North Dakota Educational Association, printed under authority of legislative enactment and under the supervision of the department of public instruction.

Respectfully yours,

CLYDE R. TRAVIS,
Secretary N. D. E. A.

/ HISTORICAL TABLE

| Date | Place | President | Secretary | Mem-ber's p | Fees |
|--------|--------------|--------------------|-------------------------------------|-------------|----------|
| 1887 | Fargo..... | John Ogden..... | Joseph Kennedy. | 43 | \$ 29.50 |
| 1888 | Jamestown.. | Homer Sprague... | Joseph Kennedy. | 34 | |
| 1889 | Grand Forks | Wm. Mitchell.... | O. P. Rider..... | 48 | 27.00 |
| 1890 | Fargo | M. A. Shirley.... | W. M. House... | .... | 43.50 |
| 1891 | Grand Forks | A. L. Woods..... | Miss E. C. Lewis | 75 | 58.50 |
| 1892 | Valley City. | J. M. Devine..... | Miss M. Portner. | 77 | 60.50 |
| 1893 | Wahpeton.. | L. B. Fancher... | E. M. Warren... (W. F. Lorin)* | 94 | 79.50 |
| 1894 | Hillsboro... | C. E. Jackson..... | W. F. Lorin..... | 56 | |
| 1895-6 | Grand Forks | Joseph Kennedy.. | W. L. Stockwell. | 135 | 105.50 |
| 1896 | Fargo | W. T. Perkins.... | W. L. Stockwell. | .... | 104.00 |
| 1897 | Grand Forks | W. E. Hoover.... | L. H. Allen..... | .... | 119.00 |
| 1898 | Fargo | E. J. Taylor..... | A. M. Simpson.. | .... | 142.00 |
| 1899 | Grand Forks | W. L. Stockwell.. | George Martin... | .... | 142.50 |
| 1900 | Fargo..... | G. A. McFarland.. | George Martin... | .... | 116.50 |
| 1901-2 | Grand Forks | Miss E. M. Stout.. | George Martin... | | |
| 1902 | Fargo..... | W. E. Hicks..... | George Martin... (A. P. Hollis)* | 135 | 120.50 |
| 1903 | Grand Forks | C. C. Schmidt.... | A. P. Hollis..... | 258 | 203.50 |
| 1904 | Fargo | J. H. Worst..... | A. P. Hollis..... | 158 | |
| 1905 | Grand Forks | Joseph Carhart... | A. P. Hollis..... | 302 | 354.00 |
| 1906 | Fargo | P. S. Berg..... | A. P. Hollis..... | 323 | 402.00 |
| 1907 | Grand Forks | Vernon P. Squires | A. P. Hollis..... | 335 | 437.00 |
| 1908 | Valley City. | Mrs. M. M. Davis | C. R. Travis..... | 338 | 423.00 |

* Pro tem.

OFFICERS FOR 1908

GENERAL ASSOCIATION.

PresidentSupt. Mattie M. Davis, Cass County
First Vice PresidentSupt. Geo. W. Hanna, Valley City
Second Vice PresidentFrances Merrill, Jamestown
SecretaryClyde R. Travis, State Normal, Mayville
TreasurerSupt. C. Ellithorpe, Williston

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PresidentDr. J. M. Gillette, University
Vice PresidentProf. Charlton Andrews, State Normal, Valley City
SecretaryProf. P. G. Knowlton, Fargo College

DEPARTMENT OF SECONDARY EDUCATION.

PresidentSupt. F. E. Smith, Wahpeton
Vice PresidentSupt. D. H. Lereaux, Cooperstown
SecretarySupt. E. R. Edwards, Minto

DEPARTMENT OF ELEMENTARY EDUCATION.

PresidentPrincipal L. M. Rockne, Mohall
Vice PresidentMiss Bertha Palmer, Larimore Public Schools
SecretaryMiss Mary E. Norton, Devils Lake Public Schools

DEPARTMENT OF SUPERINTENDENCE.

PresidentHon. W. L. Stockwell, Bismarck
Vice PresidentSupt. R. M. Black, Richland County
SecretaryE. J. Taylor, Bismarck

DEPARTMENT OF SCHOOL ADMINISTRATION.

PresidentC. E. Best, Enderlin
Vice President
Secretary

DEPARTMENT OF SCIENCE AND MATHEMATICS.

PresidentDr. G. W. Stewart, University
Vice PresidentSupt. P. S. Berg, Dickinson
SecretaryProf. C. R. Travis, State Normal, Mayville

EXECUTIVE COMMITTEE.

ChairmanMrs. Mattie M. Davis, Fargo
Department Higher and Professional Education, Dr. J. M. Gillette, University
Department of Secondary Education.....Supt. F. E. Smith, Wahpeton
Department of Elementary EducationPrincipal L. M. Rockne, Mohall
Department of Superintendence.....Supt. R. M. Black, Richland County
Department of School Administration.....Director S. R. Finley, Harvey
Department of Science and MathematicsDr. G. W. Stewart, University
State Superintendent (ex officio).....W. L. Stockwell, Bismarck
Secretary of the Association (ex officio)....Prof. Clyde R. Travis, Mayville

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OFFICERS FOR 1909

GENERAL ASSOCIATION.

President Prof. A. P. Hollis, Valley City
First Vice President Supt. B. A. Dunbar, Park River
Second Vice President Supt. G. M. Lovell, Dickey County
Treasurer C. Ellithorpe, Williston
Secretary Clyde R. Travis, Mayville

DEPARTMENT OF HIGHER AND PROFESSIONAL EDUCATION.

President Prof. Charlton Andrews, Valley City
Vice President Pres. W. M. Kern, Ellendale
Secretary Prof. P. G. Knowlton, Fargo

DEPARTMENT OF SECONDARY EDUCATION.

President Supt. E. R. Edwards, Minto
Vice President Supt. G. W. Hanna, Valley City
Secretary Supt. A. G. Crane, Jamestown

DEPARTMENT OF ELEMENTARY EDUCATION.

President Supt. W. E. Hoover, Fargo
Vice President Principal A. H. Gleason, Crary
Secretary Miss Margaret Rutherford, Mayville

DEPARTMENT OF SUPERINTENDENCE.

President State Superintendent W. L. Stockwell, Bismarck
Vice President
Secretary E. J. Taylor, Bismarck

DEPARTMENT OF SCHOOL ADMINISTRATION.

President
Vice President
Secretary

DEPARTMENT OF SCIENCE AND MATHEMATICS.

President Prof. H. L. Bolley, Agricultural College
Vice President Superintendent C. C. Gray, Grafton
Secretary Prof. Clyde R. Travis, Mayville

DEPARTMENT OF HISTORY, CIVICS AND SOCIAL SCIENCES.

President Supt. H. L. Rockwood, Enderlin
Vice President Supt. John A. Johnson, Hillsboro
Secretary Miss Genevieve M. Turner, Valley City
Directors Dr. J. M. Gillette and Mrs. Mattie M. Davis
Chairman Committee on Biography Supt. Jesse Tanner, Bismarck
Chairman Committee on Travel and Adventure
Supt. Minnie J. Nielson, Valley City
Chairman Committee on Indian Mythology Dr. O. G. Libby

DEPARTMENT OF MUSICAL INSTRUCTION.

PresidentMiss Fannie C. Amidon, Valley City
Vice PresidentMiss Clara B. Aldahl, Valley City
SecretaryMiss Eleanor Dougherty, Geneseo

EXECUTIVE COMMITTEE.

ChairmanProf. A. P. Hollis, Valley City
Department of Higher and Professional Education

Professor Charlton Andrews, Valley City

Department of Secondary EducationSupt. E. R. Edwards, Minto

Department of Elementary EducationSupt. W. E. Hoover, Fargo

Department of Superintendence

Department of School Administration

State Superintendent (ex officio)W. L. Stockwell, Bismarck

Secretary of N. D. E. A. (ex officio)Clyde R. Travis, Mayville

ASSOCIATION OF COMMERCIAL EDUCATION.

President

Vice President

Secretary

PROGRAM

FOR THE TWENTY-SECOND ANNUAL MEETING OF THE

NORTH DAKOTA EDUCATIONAL ASSOCIATION

HELD AT VALLEY CITY DECEMBER 30-31, 1908, AND JANUARY 1, 1909.

GENERAL ASSOCIATION.

WEDNESDAY, DECEMBER 30, 1908, 2 O'CLOCK, P. M.

Prayer—Rev. L. G. Moultrie.

Music—The music for this session will be under the direction of Miss Clara B. Aldahl, Supervisor of Music in Valley City Public Schools.

President's Address (20 minutes)—Mrs. Mattie M. Davis, Cass County.

Department Presidents' Addresses (15 minutes each).

Higher and Professional Education—Prof. J. M. Gillette, University.

Secondary Education—Supt. F. E. Smith, Wahpeton.

Music—(See above).

Elementary Education—Prin. L. M. Rockne, Mohall.

County Superintendence—State Superintendent W. L. Stockwell, Bismarck.

School Administration—Director S. R. Finley, Harvey.

Science and Mathematics—Prof. G. W. Stewart, University.

WEDNESDAY, DECEMBER 30, 8 P. M.

(Complimentary Concert and Reception.)

A complimentary concert will be given by the Normal School department of music in charge of Prof. Robt. B. Carson, Director, and this will be followed by a reception given by the citizens of Valley City.

THURSDAY, DECEMBER 31, 1908, 2 P. M.

(Time limit: Papers, 20 minutes, discussions, 10 minutes each.)

Prayer—Rev. Willard Crosby Lyons.

Music—Given by children from the practice department of the Normal, under the supervision of Fannie C. Amidon, teacher of music, but directed by practice teachers.

The Cultural Value of Industrial Training—President W. M. Kern, Ellendale.

Discussion (30 minutes.)

High School Constants and College Entrance Examinations.

Paper—Supt. F. M. Sherarts, Larimore.

Discussion (30 minutes.)

Music—Given by the same pupils as above.

The Need of the Pupils Leaving School at Different Ages.

Paper—Supt. R. M. Black, Wahpeton.

Discussion (30 minutes).

General discussion of the Report of the Committee of Seven.

(Opportunity is here given any member of the association to express his views upon any part of the report not specially provided for elsewhere on the program.)

THURSDAY, DECEMBER 31, 1908, 8 P. M.

Prayer—Rev. James Anderson.

Music—By "Valley City Ladies' Quartette," assisted by others.
General Culture and Culture Subjects.

Paper—Prof. A. D. Weeks, Agricultural College (20 minutes).

Discussion (30 minutes; not over 10 minutes each).

Music—By "Valley City Ladies' Quartette," assisted by others.
The Doctrine of Formal Discipline.

Paper—Prof. A. P. Hollis, Valley City (20 minutes).

Discussion (30 minutes; not over 10 minutes each).

Business.

FRIDAY, JANUARY 1, 1909, 2 P. M.

Prayer—Rev. E. O. Enget.

Music—Vocal Solo, Blanche Fridd, State Normal School, Valley City.

Lecture—Dr. N. C. Schaeffer, State Superintendent of Public Instruction.
Pennsylvania.

Music—Vocal Solo, Prof. J. B. Meyer, State Normal, Valley City.

Business.

DEPARTMENT OF HIGHER AND PROFESSIONAL EDUCATION.

FIRST SESSION.

THURSDAY, DECEMBER 31, 1908, 9:30 A. M.

1. Concept of Vocational Education and Methods of Realization.

Paper (20 minutes)—Dr. Hugh H. Buffum, Valley City Normal.
General Discussion.

2. Vocational Education as the True Education for Leadership.

Paper (20 minutes)—Prof. A. M. Bean, Fargo College.
General discussion (15 minutes).

3. How Many Higher Institutions Train for Farm Life Rather Than Away From It?

Paper (20 minutes) Prof. A. M. Brannon, University.
General discussion (10 minutes).

4. College Responsibility in Developing Courses Looking Toward Improving Rural Social Conditions.

Paper (20 minutes)—Prof. C. R. Waldron, Agricultural College.
Discussion (10 minutes)—Dr. Wallace Stearns, Wesley College.

SECOND SESSION.

FRIDAY, JANUARY 1, 1909, 9:30 A. M.

1. What Normal Schools Should Do to Train Teachers for Teaching Vocational Subjects in the Elementary Schools. Should Any Other State Institution Undertake to Train for the Same Purpose.
Paper (20 minutes)—Prof. H. F. Butterfield, Mayville Normal.
Discussion (10 minutes)—Pres. E. G. Burch, School of Science.
2. "Affiliation" in State Institutions: (a) Should it Logically End With the State University? (b) How it Comports with the American System of State and Church.
Paper (20 minutes)—Pres. E. P. Robertson, Wesley College.
Discussion (10 minutes)—Pres. G. A. McFarland, Valley City Normal.
3. The Most Practical Lines of Engineering Education in an Agricultural State.
Paper (20 minutes)—Prof. Calvin H. Crouch, University.
General discussion.
4. Business.

*DEPARTMENT OF SECONDARY EDUCATION.
FIRST SESSION.*

WEDNESDAY, DECEMBER 30, 1908, 9 A. M.

1. Should Department Influence Final Grades?—Supt. H. L. Rockwood, Enderlin.
2. The Function of the High School—Prin. Fred Hankins, Linton.
3. Our Attitude Toward Vocational Education in the High School—Supt. C. C. Gray, Grafton.
4. Manual Training in Our High Schools: What? How Much?—Supt. E. R. Edwards, Minto.
5. General discussion of the above subjects.
6. Business.

SECOND SESSION.

THURSDAY, DECEMBER 31, 1908, 9 A. M.

1. The High School Curriculum—Prin. G. R. Davies, Amenia.
2. The Constants in the High School Curriculum—Supt. A. G. Crane, Jamestown.
3. Music and Art as High School Subjects—Supt. R. L. Mason, Coopers-town.
4. General discussion of the above subjects.
5. Business.

THIRD SESSION.

FRIDAY, JANUARY 1, 1909, 9 A. M.

This session will be a series of round table discussions of the following topics by the High School Council.

1. Moral Training in the Public Schools.

2. Agriculture in the Grades and High Schools.
3. Commercial Courses in the High Schools.
4. Physical Training in the High Schools.
5. Is There Need of More Men Teachers in Our Public Schools?
6. Should High School Students Ever Graduate Without Science or Mathematics?

DEPARTMENT OF ELEMENTARY EDUCATION.

FIRST SESSION.

WEDNESDAY, DECEMBER 30, 1908, 9:30 A. M.

1. Manual Training in the Grammar Grades.
Paper—Supt. W. E. Hoover, Fargo.
Discussion—Prof. H. F. Butterfield, Mayville Normal.
2. An Ideal Course in Physical Training for the Grades.
Paper—Mrs. Una B. Herrick, Valley City Normal.
3. Agriculture in the Elementary Schools.
Paper—
General discussion.
4. Audubon Society Stereopticon Lecture—Supt. Gray, Grafton.

SECOND SESSION.

THURSDAY, DECEMBER 31, 1908, 9:30 A. M.

1. Should Special Advantages be Given to Bright Pupils?—Miss Mary Norton, Devils Lake.
2. Teaching of Hygiene in the Common Schools—Dr. G. F. Ruediger, University.
3. General discussion.
4. Business.

DEPARTMENT OF COUNTY SUPERINTENDENCE.

FIRST SESSION.

WEDNESDAY, DECEMBER 30, 1908, 9:30 A. M.

Business session.

SECOND SESSION.

THURSDAY, DECEMBER 31, 1908, 9:00 A. M.

General Theme—"Vocational Studies."

1. The Time Element in the Curriculum of Our Rural Schools.
Paper—Supt. Geneva M. Lovell, Dickey County.
Discussion led by Supt. A. G. Miller Steele County.
2. Desirability of Instruction in the Elements of Agriculture in Schools for Rural Communities.
Paper—Supt. E. M. Sherry, Rolette County.
Discussion led by Supt. Frederick Davis, Adams County.

3. Agriculture and the Teacher.
Paper—Supt. B. O. Scriveth, Nelson County.
4. General Description of a Course in Agriculture for Rural Schools.
Paper—Prof. J. H. Sheppard, Agricultural College.

THIRD SESSION.

FRIDAY, JANUARY 1, 1908, 9 A. M.

1. Elementary Schools and Good Citizenship.
Paper—Supt. I. A. Kampen, Griggs County.
 2. Unfinished discussions.
 3. Round Table Discussions—(Topics to be furnished by the Department of Public Instruction.)
- Business.

DEPARTMENT OF SCHOOL ADMINISTRATION.

The program of this department will be announced later.

DEPARTMENT OF SCIENCE AND MATHEMATICS.

The program for this department was given in November, hence is not printed here. The papers and discussions given at that meeting will appear in the volume of proceedings along with all addresses announced in this program.

NORTH DAKOTA TEACHERS' HISTORY ASSOCIATION.

This association is not a part of the N. D. E. A. It has requested to be given time for one session during the meeting of the N. D. E. A., and the request has been granted.

SESSION.

THURSDAY, DECEMBER 31, 1908, 9:00 A. M.

(Papers limited to 15 minutes.)

1. President's Address: "The Association, Past and Future"—R. M. Black.
2. Union of History and Civics—Supt. John A. Johnson.
Discussion—Prin. C. D. Spaulding.
3. Model High School Museum—Supt. J. A. Tanner.
Discussion.
4. Correlation of Reading, Geography and History—Supt. H. L. Rockwood.
Discussion—J. L. Estrich.
5. General discussion.
6. Business.
7. Report on Travel and Adventure—Supt. Minnie J. Nielson.
8. Display of State Historical Society's Slides and a Descriptive Talk--
Dr. John M. Gillette.

(This lantern display is given that all may see what material the society has on hand which may be had to use free of charge.)

ENROLLMENT.

Each teacher is requested to enroll immediately upon arrival at the Normal School building in which the sessions are to be held. Secretary Travis and Treasurer Ellithorpe will be conveniently located in this building to take care of the enrollment.

The annual dues are one dollar and the fee for new members is an additional dollar for active membership. Anybody may become an associate member on paying one dollar. All teachers are expected to become active members. Active members vote and are entitled to the volume of proceedings.

Badges will be given immediately upon enrollment—red to active and blue to associate.

ADDRESSES SHOULD BE TYPEWRITTEN.

All addresses read before any department of the Association should be typewritten and handed to the secretary immediately upon being read. Abstracts of the discussions should be prepared in the same way. Duplicate copy should be made for the press.

TIME LIMIT.

The presiding officers of the Association and its departments are requested to enforce time limits where such are imposed, and all members taking part in this program are urged to observe such limits, thus saving all concerned from embarrassment.

REUNIONS.

Thursday from 5:30 to 7:30 p. m. will be given as a time at which reunions may be held by those institutions so desiring. Any special announcement concerning such reunions should be handed to the secretary before the first general session.

PLACE OF MEETING.

All meetings will be held in the Normal school building. The general sessions will be in the auditorium, and other meetings in various classrooms.

BE PUNCTUAL.

One cardinal virtue of a teacher should be punctuality. Be present at the time set for beginning. There is no excuse for being an hour late and thus decreasing the value of the program.

HOTEL ACCOMMODATIONS.

Hotel Rudolph, Fifth Ave S., rate \$2 a day. Hotel Kindred, Fifth Ave. N., rate, \$2 a day. Hotel Butler, Fifth Ave N., rates, \$1.25 a day. Fifth Avenue Hotel, one block north of the Northern Pacific station, rate, 50 cents a day. Valley City Hotel, Fifth Avenue. N., rate \$1 a day. City Hotel, Main St., rate \$1.25 a day. European Hotel, Fourth Ave. S., rate \$1.25 a day. Hotel Skandia, Second Ave. S., rate, \$1 a day. Hotel Thoreson, Second Ave. S., rate \$1 a day. Young Women Students' Hotel, Second Ave. S., rate \$1 a day. Interurban Cafe, Fifth Ave. N., meals, 25

cents. Golden West Cafe, East Main St., meals, 25 cents; Witter's Cafe, Fifth Ave. N., luncheon a la carte. Burnham's Cafe, Fifth Ave. S., meals a la carte. Women's Dormitory, west of the Normal School, rate, \$1.25 a day, "family style," two in room. Episcopal Hall, north of the Normal School, on First St., rate, \$1.25 a day.

MINUTES

OF THE EXECUTIVE COMMITTEE OF THE NORTH DAKOTA EDUCATIONAL ASSOCIATION.

Fargo, North Dakota, September 18, 1908.

The meeting was called to order at 10:30 a. m. by Mrs. Mattie M. Davis, president of the association and chairman of the executive committee. The following members of the committee were present: Supt. Davis, Dr. Gillette, Supt. Smith, Supt. Black, Prof. Travis and Director Finley. Upon invitation there were with us, President McFarland, Supt. Nielson and Supt. Hanna, all of Valley City, and Prof. Schmidt, of the University, who was requested to give a report of the work of the committee of seven.

Mrs. Davis explained that she had requested a report of the committee of seven to be given before us, and by consent of the executive committee, the report was called for. Professor Schmidt then read the report and said that the problem of adjustment being so great, it was the wish of the committee which he represented to receive assistance. He therefore requested the executive committee to use as much of the matter presented by his committee as they might deem practicable for the program of the N. D. E. A.

It was moved by Supt. Smith and seconded by Mr. Finley, that Pres. McFarland, Supt. Hanna and Supt. Nielson act as a committee on local arrangements for the coming meeting of the N. D. E. A. Carried.

It was moved and seconded that the date of the coming meeting be December 29, 30 and 31, 1908. The motion prevailed.

Note.—Later in the season it was ascertained by Supt. Stockwell that the association could secure Dr. Schaeffer of Pennsylvania to address it on January 1, 1909, and permission to change the date was asked of each member of the committee. Such permission being granted by a majority of the committee, the date was changed to December 30 and 31 of 1908, and January 1 of 1909.

It was moved by Dr. Gillette and seconded by Mr. Finley, that we follow the subjects suggested by the committee of seven for the program of the general sessions. Carried.

Upon request; Professor Schmidt was given the privilege of the floor and presented the matter of the expenses of the members of the committee of seven incurred in attending the meetings of this committee and of sub-committees of the said committee of seven.

Upon motion made by Supt. Smith and seconded by Supt. Black, it was voted to allow all bills including necessary expenses of the members of the committee of seven incurred in performing their official duties as members of such committee, and to authorize the publication of 500 copies of the preliminary report of this committee; and to authorize the secretary to issue warrants upon the treasurer of the N. D. E. A. in payment for publishing such report. Carried.

After some discussion of the details of the program for the general association, it was moved and seconded to reconsider the motion pertaining to the subject matter of the program for these sessions. Carried.

Moved by Supt. Smith and seconded by Dr. Gillette, that one entire session of the general association be turned over to the committee of seven and that we recommend that the departments devote this session for that day, or for one day, to the consideration of vocational education. Carried.

Moved, seconded and carried, that the program for the general sessions be, in part, as follows:

TUESDAY, DECEMBER 29, 2 P. M.

Prayer.

Music.

President's Address (20 minutes)—Mrs. Mattie M. Davis.

Addresses of the Department Presidents (15 minutes each)—

Department of Higher and Professional Education—Dr. J. M. Gillette.

Department of Secondary Education—Supt. F. E. Smith.

Music.

Department of Elementary Education—Prin. L. M. Rockne.

Department of Superintendence—W. L. Stockwell.

Department of School Administration—Mr. S. R. Finley.

Department of Science and Mathematics—Dr. G. W. Stewart.

Business.

TUESDAY EVENING.

The plans for this evening were left with the committee on local arrangements.

WEDNESDAY, DECEMBER 30, 2 O'CLOCK P. M.

Prayer.

Music.

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*

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Music.

*

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*To be furnished by the committee of seven.

WEDNESDAY EVENING.

The program to be arranged for by Mrs. Davis and Supt. Stockwell

THURSDAY, DECEMBER 31, 2 O'CLOCK, P. M.

Prayer.

Music.

The Doctrine of Formal Discipline (20 minutes)—A. P. Hollis.

General Culture and Cultural Subjects (20 minutes)—A. D. Weeks.

Business.

Lecture by Educational Expert. .

Music.

Moved to adjourn. Carried.

CLYDE R. TRAVIS,

Secretary N. D. E. A.

Explanation.—By correspondence, the executive committee agreed to change the program from that given above to that as printed in regular programs.

MINUTES

OF THE GENERAL SESSIONS OF THE TWENTY-SECOND ANNUAL MEETING OF THE NORTH DAKOTA EDUCATIONAL ASSOCIATION,

HELD AT VALLEY CITY, N. D., DEC. 30-31, 1908, AND JAN. 1, 1909.

WEDNESDAY AFTERNOON, DECEMBER 30.

The session was opened with prayer by Rev. L. G. Moultrie, of the Episcopal church of Valley City, the session having been called to order by Professor V. P. Squires, the retiring president of the association.

Professor Squires then introduced Mrs. Mattie M. Davis, president of the association, who took charge of the meeting.

Children from the eight grades of the public schools then gave several musical numbers under the supervision of Miss Clara B. Aldahl, supervisor of music in Valley City public schools.

Mrs. Mattie M. Davis read an address on The Needs of the Rural School.

Mrs. Davis was followed by Prof. J. M. Gillette, president of the department of higher and professional education, who delivered an address on Education for Social Efficiency.

Supt. F. E. Smith next represented the department of secondary education in an address.

This address was succeeded by music from pupils of the public schools directed by Miss Aldahl.

Pres. McFarland announced the complimentary concert to be given in the evening by the Normal School department of music, and to be followed by a reception given by the citizens of Valley City.

The next speaker was W. L. Stockwell, state superintendent of public instruction, whose subject was The Rural Schools. He represented the department of superintendence.

The representatives of the departments of elementary education, school administration and sciences and mathematics were not present, and their addresses were not delivered.

It was moved and seconded to elect two members from the general association for the nominating committee. The motion prevailed and Superintendents Stockwell and F. E. Smith were elected.

Professor Gillette moved that an auditing committee consisting of three members be appointed. The motion was seconded and, upon being put, carried. The president named Professor Gillette, Superintendent Hoover and Superintendent Groom as members of this committee.

WEDNESDAY EVENING.

A complimentary concert was given by the Normal School department of music, under the direction of Professor Robert B. Carson, director. The program was as follows:

- (a) Legende Wieniowski
 (b) Mazurka "Obeitos" Wieniowski

Mr. Froysaa

Love Scene from the Fourth Act of Romeo and Juliet Gounod
 Dean and Mrs. Carson.

- (a) Pixie People Riley
 (b) Legend of the Blush Rose Leigh Hunt
 (c) The Poet and His Song Dunbar
 (d) Love Scene from Henry V Shakespeare

Mrs. Herrick.

- (a) A Memory Brusker
 (b) Jean Burleigh
 (c) Thou Art So Like a Flower Rubenstein

Miss Amidon.

Neath the Stars Goring Thomas
 Dean and Mrs. Carson.

The association appreciated the rare treat given it and every one who took part on the program was recalled to the stage two or three times. The encores were responded to with selections no less worthy the talent displayed than were the numbers named above.

Immediately after the concert, the association repaired to the old assembly room of the normal building, where they enjoyed a very pleasant reception tendered by the citizens of Valley City. During the reception an orchestra dispersed pleasing music and dainty refreshments were served.

A motion to appoint a resolution committee was seconded and carried. W. L. Stockwell, P. G. Knowlton, P. S. Berg, B. A. Wallace and Miss Alice Fisher named as members of this committee.

Professor C. R. Travis announced that at a later session he would offer amendments to Articles IV and V of the constitution, amending Article IV entirely and amending sections 1, 2 and 5 of Article V, and adding sections 9 and 10 to this article. The amendments to be proposed were then read.

Moved and seconded that the question of deciding the place of meeting for next year be made an order of special business for the Wednesday afternoon session. The motion prevailed.

The secretary read a petition of the North Dakota Teachers' History Association to be admitted to affiliation with the association. After considerable discussion it was moved and seconded that this request be referred to a committee of three appointed by the chair. The motion carried and the chair announced that the committee would be named later.

A telegram expressing greetings from the city of Denver to the association was read, and a motion instructing the president of the association to answer this was made, seconded and carried.

Professor A. P. Hollis then moved that the matter of instructing the executive committee concerning the fixing of the time of meeting for next year be made an order of special business for the general session to be held on Wednesday afternoon. The motion carried.

On motion the association adjourned.

THURSDAY AFTERNOON, DECEMBER 31.

The association was called to order at 2:25 p. m., by the president, and was opened with prayer by Rev. Willard Crosby Lyons of the First Congregational church of Valley City. Children from the practice department of the normal school then excellently rendered several numbers of music. This was under the supervision of Miss Amidon, but the children were directed by practice teachers.

The Cultural Value of Industrial Training was presented in a paper by President W. M. Kern. Discussion of this paper was postponed.

Superintendent F. M. Sherarts next read a paper on High School Constants and College Entrance Examinations.

A spirited discussion of the two papers followed. It was then moved that further discussion of them be deferred until after the business session. The motion prevailed.

Moved and seconded that the paper by Superintendent Black be read. After a discussion concerning the propriety of allowing the reading of this paper whose writer was absent when, in similar circumstances, other papers had not been read, the question was put and a division was called for. The president called for a standing vote and the secretary announced 66 votes for the motion and 56 against. The chair declared the motion carried and Superintendent Hanna read the paper on The Need of the Pupils Leaving School at Different Ages.

At this time the president announced the reunions of those connected with state normals and of those whose former home was Iowa. Also the announcement of a meeting of the high-school league to be held on Friday morning was made.

A motion to proceed to the special order of business was made, seconded and carried. Superintendent E. G. Warren then presented an invitation to the association to meet in Minot next year. Mr. Tracy, representing the business men's union of Minot, and Superintendent Wolfe of the public schools both supplemented the invitation given by presenting invitations from the interests which they represent. Mr. Warren then moved that the next meeting of the North Dakota Educational Association be held in Minot. This motion, being seconded, it was put and carried by a practically unanimous vote.

Professor Hollis then moved that the executive committee for the next year be requested to arrange a date between the fifteenth of October and the fifteenth of November for the meeting of this association; that this time be preferably the last three days of a week, and that the committee seek the co-operation of the Department of Public Instruction in devising means for securing the co-operation of the various school boards of the state for the dismissal of schools upon the dates agreed upon, without loss of salary to the teacher.

This motion was seconded and discussions called for.

It was moved as a substitute motion that the executive committee be requested to exert all effort possible to secure legislation requiring school boards to dismiss their schools upon the dates set for the annual meeting of the North Dakota Educational Association. After considerable discussion this motion was put and lost.

It was then moved to amend the motion made by Professor Hollis by substituting the words "nineteen hundred and ten," for the words "the next year." The amendment was lost.

The original motion was then put and carried by a decided majority. On motion the association adjourned.

THURSDAY EVENING, DECEMBER 31.

The association was called to order at 8:35 by Vice President Hanna, and the session was opened with prayer by Rev. E. O. Enget of the Norwegian Baptist church of Valley City.

The Valley City Ladies Quartette rendered "Last Night," and responded to an enthusiastic encore. This was followed by a vocal solo from Miss Blanche Fridd, whose rich sweet voice called for an encore, to which she responded.

Professor A. D. Weeks then addressed the assembly on "General Culture and Culture Subjects." On motion, the discussion of this theme was postponed until after the reading of the next paper.

The theme, "The Doctrine of Formal Discipline," was presented by Professor Hollis, and discussed by Professor Andrews, who believes that the present educational methods are lacking in that they will not result in properly disciplining the mind of the pupil and in giving him the desired power of concentration.

Moved, seconded and carried to pass to the business session.

The nominating committee announced that it was ready to report, and a motion to hear this report was made and carried.

The committee made the following report through its chairman, State Superintendent Stockwell:

President—Professor A. P. Hollis, Valley City Normal.

Vice President—Superintendent B. A. Dunbar, Park River.

Second Vice President—Geneva M. Lovell, Superintendent of Dickey Co.

Secretary—Professor C. R. Travis, Mayville Normal.

Treasurer—Superintendent C. Ellithorpe, Williston.

On motion the report was adopted.

It was moved and seconded to adopt the minutes of the last annual meeting as printed.

After an explanation showing the necessity of a correction in the minutes, it was moved and seconded to amend the motion by instructing the secretary to correct that portion of the minutes pertaining to the amendment to the constitution offered last year by Superintendent Hoover. The amendment carried.

The motion as amended was then put and carried.

The committee appointed to consider the admission of the Association of History Teachers made its report through its chairman, Professor

Squires, and a motion to adopt this report as read having been made and seconded, the report was adopted.

It was moved and seconded that the History Association be admitted on the terms prescribed in the report just adopted. The motion carried.

A petition from the members of the Music Supervisors' Club to affiliate with the association was read by Professor Squires, and upon a motion which was seconded, the club was admitted as the Department of Musical Instruction and upon the same terms as the other department just admitted.

It was moved and seconded that the secretary be instructed to cast a ballot for the persons nominated by the nominating committee. Carried.

The secretary announced the ballot cast and the presiding officer declared the following officers elected for the next year:

President—Professor A. P. Hollis, Valley City Normal.

Vice President—Superintendent B. A. Dunbar, Park River.

Second Vice President—Genève M. Lovell, Superintendent of Dickey Co.

Secretary—Professor C. R. Travis, Mayville Normal.

Treasurer—Superintendent C. Ellithorpe, Williston.

A motion to adjourn was made, but plenty of time having elapsed and the motion not having received a second, it was declared lost.

A motion to hear the report of the committee on resolutions was then made, seconded and carried. The committee announced that it was not ready to report.

On motion the association was adjourned.

FRIDAY AFTERNOON.

At 2:25 p. m. the association was called to order by the president, Mrs. Mattie M. Davis, and opened with prayer by the Rev. James Anderson.

Prayer was followed by a vocal duet by the Misses Aldahl and Amundson, teachers in the Valley City public schools.

Dr. N. C. Schaeffer was then introduced by State Superintendent W. L. Stockwell. Dr. Schaeffer addressed the assembly on "Work and Play in Education."

At the close of Dr. Schaeffer's lecture, Superintendent Stockwell introduced Miss Eleanor Smith of Chicago, who gave a most interesting talk on "Music as a Means of Training the Mind."

Professor Meyers of the Valley City Normal rendered vocal solos in such a pleasing manner that his audience demanded him to return a second time.

Several announcements concerning trains, handing of papers to the secretary, payment of dues, etc., were made.

Vice President Hanna then announced that the association would proceed to the transaction of whatever business was before it. Secretary Travis presented amendments to the constitution as follows, previous notice having been given:

AMENDMENTS TO ARTICLE IV.

Section 1. There shall be two classes of members, active and associate.

Sec. 2. Any person engaged in educational work and any member of a board of education shall become an active member of this association upon payment of the annual dues of one dollar; provided, that the adoption

of this amendment shall not affect the privileges of any person now enjoying membership in this association.

Sec. 3. Any person not engaged in educational work shall become an associate member of this association upon payment of the annual dues of one dollar.

Sec. 4. Active members only shall have the right to vote in this association.

Sec. 5. Every member shall be entitled to a volume of the proceedings.

ARTICLE V.

Section 1. The officers of this association shall consist of a president, two vice presidents, a secretary, a treasurer, an executive committee and an auditing committee.

Sec. 2. The executive committee shall consist of the president and secretary of the association for the ensuing year, the state superintendent, and one member elected annually from each of the following departments:

Department of higher and professional education.

Department of secondary education.

Department of elementary education.

Department of superintendence.

Department of school administration.

(Sections 3 and 4 are unchanged.)

Sec. 5. The duties of the executive committee shall be to prepare the program and make such arrangements as are necessary for the annual meeting. The annual meeting of the executive committee shall be held prior to the fifteenth of June of each year. Each member of this committee elected from a department shall, at this annual meeting, present a tentative program for the department from which he was elected. The committee shall have the data for the final program in the hands of the secretary six weeks prior to the date set for the annual meeting.

(Sections 6, 7 and 8 are unchanged.)

Sec. 9. The finance committee shall consist of three members elected annually by the association.

Sec. 10. The duties of the finance committee shall be to authorize the payment of all bills, and to audit the accounts of the secretary and treasurer.

It was moved and seconded that the amendments be adopted as a whole. There was some discussion upon the wording of one or two amendments, and the secretary stated that he would change the wording with the permission of those moving the adoption and seconding the motion. The motion was put and carried by a vote almost unanimous; and the amendments were declared made.

It was moved and seconded to recommend to the executive committee that one-half day be devoted to the subjects of special interest to the departments not represented on the committee.

This motion was discussed at length and when put, the chair was unable to decide whether it was carried. A rising vote was called for and

the vote showed a very large majority in favor of the motion, which was declared carried.

Moved and seconded to elect an auditing committee. Motion prevailed.

Moved and seconded that the present auditing committee consisting of W. E. Hoover, B. E. Groom and J. M. Gillette, constitute the auditing committee for next year. Motion prevailed.

Moved and seconded that the report of the committee on resolutions be now heard. Motion carried.

The report of the resolutions committee was now given.

By motion made and seconded, the resolutions were adopted as made by the committee.

The report of the committee on necrology was called for but none given. President McFarland then spoke of the death of Dr. Brown, of the Valley City Normal faculty, which occurred last year. He spoke very highly of Dr. Brown as an educator and as a man.

It was moved and seconded that it is the sense of the association that President McFarland prepare a memorial on Dr. Brown to be published with the proceedings of this meeting. Carried.

The report of the auditing committee was called for, and the report was given as follows:

Valley City, N. D., January 1, 1909.

We, the undersigned committee of audit, hereby report that we have examined the accounts of the secretary and the treasurer of your association and we beg leave to report as follows:

| | |
|---|-----------|
| Balance received from Treasurer Geo. L. Thomas, | |
| January 21, 1908 | \$ 262.50 |
| Interest on certificate of deposit | 10.09 |
| Membership fees for year ending January 1, 1908.. | 391.00 |
| <hr/> | |
| Total receipts | \$ 663.50 |
| Total orders drawn and paid | 114.75 |
| <hr/> | |
| Cash on hand January 1, 1909 | \$ 548.75 |
| Orders drawn and not paid | 268.36 |
| <hr/> | |
| Total assets January 1, 1909 | \$ 280.39 |

Respectfully submitted,

J. M. GILLETTE,
W. E. HOOVER,
B. E. GROOM.

By motion this report was adopted.

The treasurer then gave his report, which was adopted.

It was moved by Supt. Dunbar that a sum not exceeding fifty (\$50) dollars be appropriated for the purpose of establishing and maintaining headquarters at the N. E. A. meeting at Denver next year. The motion was seconded and carried.

Moved and seconded that the association do now adjourn. The motion prevailed and the association stood adjourned.

CLYDE R. TRAVIS,
Secretary N. D. E. A.

TREASURER'S REPORT.

RECEIPTS.

| | | |
|---|----|--------|
| Balance on hand as per last annual report | \$ | 262.50 |
| Interest on deposit | | 10.00 |
| Received from active memberships of old members | | 143.00 |
| Received from active memberships of new members | | 170.00 |
| Received from associate memberships | | 78.00 |
| | | <hr/> |
| Total receipts | \$ | 663.50 |

DISBURSEMENTS.

| | | |
|--|----|--------|
| A. P. Hollis, N. E. A. membership and incidental expenses | \$ | 5.55 |
| N. C. McDonald, N. E. A. headquarters | | 50.00 |
| W. A. Godward, expense committee of seven | | 7.40 |
| J. M. Stewart, printing | | 5.50 |
| C. C. Schmidt, expense committee of seven | | 21.60 |
| St. Louis Button Co., badges | | 17.50 |
| J. M. Gillette, expense executive committee | | 7.20 |
| P. G. Knowlton, expense committee of seven | | 8.00 |
| C. R. Travis, salary and miscellaneous expenses | | 82.79 |
| N. C. Schaeffer, lecture | | 80.00 |
| John Sad, janitor | | 10.00 |
| C. Ellithorpe, treasurer, expenses | | 21.00 |
| W. G. Croker, printing | | 26.97 |
| R. M. Black, expense executive committee | | 4.10 |
| Herald Printing Co., printing reports | | 34.50 |
| F. E. Smith, expense, executive committee | | 2.90 |
| W. A. Godward, expense executive committee | | 9.00 |
| | | <hr/> |
| Total disbursements | \$ | 394.01 |
| Cash on hand | | 269.49 |
| | | <hr/> |
| Total | \$ | 663.50 |

Respectfully submitted,

C. ELLITHORPE,

Treasurer.

RESOLUTIONS.

Recognizing the need of a higher standard in our rural and small graded schools, we urge a state appropriation to aid such of these schools as maintain a high standard and meet certain reasonable conditions.

As a means toward more effective supervision of our rural schools, we recommend increased assistance for the superintendents of our larger counties, with the requirement that all field deputies shall possess the qualifications prescribed by law for county superintendents.

Believing that the offices of state superintendent and county superintendent should be put upon a strictly professional basis, we urgently recommend the enactment of legislation to carry this into effect.

Realizing the need of special training for high school teachers, village principals and superintendents, and recognizing that the state has begun the provision for this need by establishing in connection with the state university a teachers' college and model high school, we therefore urge our next legislature to provide for a home for these institutions suitable for their needs.

Recognizing the inherent right of the child to an education, we heartily endorse the efforts being made for the enactment of a comprehensive child labor law in this state.

That the committee of seven appointed a year ago by the departments of higher and secondary education is hereby constituted a committee of the N. D. E. A., and is instructed to continue its work; that the committee be authorized to call upon other North Dakota educators for such assistance as it may deem necessary; that the committee shall emphasize the problem of the elementary schools for the coming year, with a view to definite recommendations in this line at least at the next association; that the necessary expenses of the committee be paid from the funds of the association upon presentation of proper vouchers to the secretary of the association.

Recognizing that the welfare of our state is so largely dependent upon the prosperity and progress of the farmers, we heartily endorse the appointment and work of the National Commission on Country Life. We trust that the outcome of its labors will be to make the farmers' work more efficient economically, and his life broader and richer.

Resolved, That we express our approval of the movement looking toward the establishment of a national college for the blind, which shall offer to these unfortunate young people opportunities for higher education equal to those provided by the similar institution for the deaf and dumb.

That in view of the retirement from the leadership of our state university of President Webster Merrifield, we desire to express our appreciation of his quarter of a century of faithful and efficient service. His breadth of vision, loyalty to high ideals, and practical common sense have made him a large and important factor in the rapid educational development of our state. We regret that we shall lose the benefit of his wise counsels. We hope that we may often welcome him to our future meetings, and we are glad of this opportunity to pay him this well deserved tribute. We bid him Godspeed for the future.

That we take special pleasure in expressing our hearty appreciation of the cordial reception given us by President McFarland and the faculty of the state normal school, Supt. Hanna and his able assistants, County Superintendent Neilson, and the citizens of Valley City.

NECROLOGY.

CHARLES ELLSWORTH BROWNE, PH. D.

The death of Doctor Browne at Valley City, March 26, 1908, was a serious blow to education in North Dakota. He was young, enthusiastic, well trained, earnest, high minded, and with charming personality that made friends immediately among associates and students and held them firmly.

He was born at Lakeville, a suburb of Middleboro, Mass., in 1875. Graduated from the Middleboro high school in 1897, became a student at Dartmouth College and took his A. B. degree from that institution in 1901, his A. M. in 1902. From this institution he entered Clark University, Worcester, Mass., which conferred upon him his Ph. D. degree in 1904. For two years he was training teacher for the seventh and eighth grades in the practice department of the South West State Normal School at California, Pennsylvania, and taught while there the class in psychology. In 1906 and part of 1907 he was a post-graduate student at Hartford Theological Seminary and School of Religious Pedagogy. In the summer of 1907 he was assistant in psychology at the state normal school, Ypsilanti, Michigan. In the fall of that year his services were secured as professor of psychology with the State Normal School at Valley City, and in December of that year he joined the North Dakota Educational Association at Grand Forks, N. D. North Dakota people and methods captured his heart from the beginning and if there was a member of the association more enthusiastic over their work I do not know him.

Dartmouth College makes the following comment upon his death: "Dr. Browne's career is one of which every Dartmouth man may be justly proud. He came to Dartmouth badly prepared and absolutely without resources. His constant fight against extreme adversity and his final victory may well be compared with heroic deeds of Dartmouth men of any generation. Somewhat older than his fellows, and naturally of a retiring nature, the necessity of constant hard work to maintain himself and to do his college work set him apart from his classmates. Later in his course he became better known and highly respected. It was a great source of satisfaction to himself and his classes when upon graduation he was awarded the Grimes prize for general improvement. Whatever he was he made himself."

He was the most successful teacher of all the young men that have recently come to North Dakota, and with a great promise of usefulness to our state. His death was sincerely lamented by the board of trustees, faculty and students. A living monument shall stand in the hearts of many people who came to know and love him.

GEO. A. MCFARLAND,
President.

PETITIONS FOR AFFILIATION.

To the Officers and Members of the North Dakota Educational Association:

We, the undersigned members of the North Dakota Teachers History Association, do hereby petition the said North Dakota Educational Association to allow said History Association to be affiliated with your body as the Department of History, Civics and Social Sciences in said N. D. E. A.:

R. M. Black, president.
H. L. Rockwood, secretary.
Fred Wanner.
Minnie J. Nielson.
John M. Gillette.
Genevieve Turner
Frances A. Merrill.
Nelson Sauvain.
Marshall D. Willemar.
J. A. Tanner.

To the North Dakota Educational Association:

We, the undersigned members of the Music Supervisors Club in North Dakota, being active members of the N. D. E. A., respectfully petition said N. D. E. A. to be allowed to affiliate with said N. D. E. A., and to be known as the Department of Musical Instruction in the North Dakota Educational Association: (Signed)

Fannie C. Amidon, Valley City.
Clara B. Aldahl, Valley City.
Bertha Palmer, Larimore.
Blanche Fridt, Valley City.
Genevieve Turner.
Eleanor Dougherty.
Sarah Graves.
Mary G. Deem.
Jennie McGregor.
Elizabeth Kinder.
Augusta Amundson.
Florence McDonald.

The following request was handed to the association but through error it was not put before the association for a vote.

Valley City, N. D., January 1, 1909.

To the North Dakota Teachers' Association:

We, the undersigned persons, being interested in the Commercial phase of education in North Dakota, respectfully petition the State Teachers' Association of said state for admission as a distinct section thereof, to the end that we may the more successfully carry on our definite line of

work. We beg to add that if this request receive your favorable consideration, the section so created shall arrange its program so as not to interfere with any of the programs of the general association and also show respectful deference to the sections already existing. (Signed)

Mrs. W. M. Greenwood.

Nora Outram.

G. W. Hanna.

H. L. Rockwood.

C. Ellithorpe.

Geo. A. McFarland.

Fred M. Wanner.

W. L. Stockwell.

Troy J. Wilson.

M. W. Barnes.

E. G. Warren.

F. M. Sherarts.

PRELIMINARY REPORT

OF THE COMMITTEE OF SEVEN ON ADJUSTMENT OF EDUCATIONAL
WORK IN NORTH DAKOTA WITH REFERENCE
TO THE NEEDS OF THE TIMES.

PRELIMINARY REPORT

OF THE COMMITTEE OF SEVEN ON ADJUSTMENT OF EDUCATIONAL WORK IN NORTH DAKOTA WITH REFERENCE TO THE NEEDS OF THE TIMES.

To the North Dakota Educational Association:

The undersigned committee on adjustment of educational work in North Dakota has the honor to submit the following preliminary report on the subject assigned for its consideration:

C. C. SCHMIDT, Chairman.
W. L. STOCKWELL,
D. E. WILLARD,
T. A. HILLYER,
W. A. GODWARD,
B. A. WALLACE,
P. G. KNOWLTON,
Committee.

HISTORICAL STATEMENT.

At a joint session of the departments of secondary education and of higher and professional education of the North Dakota Educational Association, held in Grand Forks, January 3, 1908, the general theme of the program was the "Adjustment of Educational Work in the High Schools, Normal Schools and Colleges in North Dakota, especially as to Matter, Method and Unity, with Reference to the Needs of the Times." A number of able papers were read and a general and spirited discussion followed, in which many of the leading members of the association participated. The topic as printed on the program was confined to high schools, normal schools and colleges, but the discussions took a wider range, including the elementary schools also, and thus applying to our entire educational system. The particular issue seemed to be the question of vocational education, although the adjustment of proper limits to the sphere of activity of high schools, normal schools and colleges also received some attention. At the conclusion of the discussion, upon motion of Prof. Vernon P. Squires of the State University, a committee of seven was appointed "to consider the theme discussed at this meeting, * * * formulate a plan of adjustment of educational work in this state, and make a report of progress at the next meeting of the North Dakota Educational Association, * * * and make final report as soon as possible." The committee appointed consists of Professor C. C. Schmidt, State University, Chairman; State Superintendent W. L. Stockwell, Bismarck; Professor D. E. Willard, Agricultural College; President T. A. Hillyer, State Normal School, Mayville; City Superintendent W. A. Godward, Devils Lake; County Superintendent B. A. Wallace, Hillsboro; Professor P. G. Knowlton, Fargo College.

The executive committee of the North Dakota Educational Association requested this committee to make its reports to the association and provided for the payment of the necessary expenses of its meetings and of the publication of the present report.

INTRODUCTION.

We feel that this report is but fragmentary, and it is therefore quite unsatisfactory to us; but we hope that it may answer the purpose of a "report of progress" which we were instructed to make at this time, and that it may be of some slight service to the members of the association in their study of the educational problem of North Dakota. We have held three meetings and given considerable study to the task assigned to us, and we are more than ever impressed with its magnitude and difficulty. Our greatest educational question is, undoubtedly, whether the course of study should bring the child into closer contact with his environment. For the upper grades of the elementary school, and for the high school and college, this assumes the form of the so-called question of vocational education, whose advocates desire that the student's probable future environment and occupation should become more important factors. The various problems growing out of this fundamental one are very numerous and very perplexing, and, we believe, so important that the next program of the North Dakota Educational Association could profitably be devoted to them entirely. The thorough discussion by the leading educators of the state, as here contemplated, our committee considers an indispensable aid to the formulation of its final report. We give elsewhere a number of questions and topics that we have under consideration, and we recommend that you give to them and allied subjects a liberal portion of your attention at your forthcoming meeting.

COMMENTS ON THE CURRENT DISCUSSION.

We believe that a good part of the current discussion arises because we individually have not yet carefully thought out our own ideas and learned to express them in terms that are accepted by others in the same sense that we attach to them. A more careful definition of our attitude and an equal solicitude to get a true understanding of the attitude of others who appear to hold different views is even more than usually necessary in the present instance. One man declares himself for vocational education, and it raises the specter of the school turned into a shop and the old apprentice system reinstalled. Another believes in education for social efficiency, and it is thought that he wants the school to study nothing but civil government. Another says that the school should "face life," and his hearers feel that this is but a truism.

If, however, these people would outline their program with some degree of definiteness the vocationalist might explain that the dominant purpose of our rural schools, for example, is to educate the farmer's children for farmers, and he would, therefore, teach them the principles that govern soil management and plant and animal growth. The aim of this instruction would be to help solve the problem how to secure larger crops at

less cost and yet maintain the soil fertility. But the farmer must also have sufficient commercial education to handle the business phases of his farm, for he is an investor of capital, the manager of an industry, a seller as well as a producer. He should also be familiar with some of the forms of government and economics, so as to understand the relation of agriculture to other industries and to such things as railroad rates, tariff and taxation; and as an intelligent citizen he should be qualified for the duties that are incumbent upon all patriotic members of organized society. The farmer should also be a student of social problems, especially those that affect the farmer,—his opportunities for social life, his school facilities, church privileges, etc. He would not stop at training the farmer's children with reference to their success on a low plane of life, but would train them for a better state and provide for their spiritual life in accordance with an ideal conception of humanity. He would train them to read not only writings upon the various branches of the farmer's vocation, but also others from the domain of history, sociology, government and pure literature. He would endeavor to cultivate a taste for all that is beautiful in nature and in art and a sympathy with all that makes modern civilization worth while. Lastly, his scheme would endeavor to create in the school an abiding faith in agriculture, a better attitude toward the farmer's occupation and an appreciation of the many advantages that belong to rural life.

To thus enrich the present course of study would necessitate a simplification of the same, and some elimination, but the bulk of its subject matter would be retained.

The social efficiency man might be pleased with this program, for he too considers efficiency in one's vocation the basis of social efficiency, and everything else that he contends for is included in the first man's program. The third man also might agree that such a school would "face life," and thus it would be found that there is really no difference of opinion between them.

The committee does not believe that an analysis of these three educational aims would always result thus happily, but many of their advocates would find themselves in practical harmony upon a more careful comparison of views, while most of the others would discover but minor differences.

TERMS EMPLOYED.

It will be noticed that the committee makes use of the term *vocational education* in speaking of the movement under consideration. The committee prefers this term to *industrial education*, which ignores the claims of the commercial courses and of those specially helpful to the learned professions.

It may not be amiss to add that under the term *industrial education* we ought to include instruction in agriculture, as well as manual training and the work of trade schools and technical schools. In this state, where agriculture is distinctly the leading industry, we ought especially to have it in mind when we speak of "industrial education." The National Educational Association committee on industrial education in schools for rural communities, gives agriculture the first place in the scheme of industrial education which it recommends.

Again, the term *vocational education* should not be too strongly suggestive of *trade schools*. Germany maintains scores of trade schools, and many thousands are thus trained annually for the great army of skilled workmen which has given the fatherland the most marvelous industrial development in modern history. Recently a few such schools have also been established in the large cities of this country. But the work of trade schools is far narrower and more highly specialized than that contemplated by the advocates of the vocational movement in North Dakota. Trade schools throw an instructive side light upon our problem, but their establishment as a regular part of the public school system is at present not a live educational question in North Dakota, and the committee does not know of any one who is advocating the immediate adoption of such a measure.

As between the friends of the movement for vocationalization and those who give their unqualified adherence to the traditional curriculum there are certain differences that will remain even after the disagreements due to misapprehension or confusion of terms have been eliminated from the bill of particulars. The conservatives admit, perhaps, that the schools should contribute to the preparation of the pupil for a vocation, but would have that vocation so colorless that the same program would serve as well for the coming farmer as for the merchant, preacher or lawyer. The vocational people, on the other hand, demand that the curriculum take cognizance of the future vocation of the pupil and make fair provision for the distinctive principles, and, as far as possible, for training in the technique of that vocation.

CONCLUSIONS.

The conclusions thus far reached by the committee are as follows:

1. We believe that a system of education should be adapted to the needs of the people for whom it is intended, that a curriculum should be re-adjusted periodically to meet the changing needs of the age and country, that our elementary school curriculum and our high school curriculum are now in need of such revision, and that the work in the normal schools and colleges should be re-adjusted in conformity to the changes made in the elementary and high school curricula.

2. In making this readjustment of the curriculum and adapting it to meet the "needs of the people for whom it is intended," the committee believes that man's physical, vocational, cultural, civic, moral and religious interests are sufficiently important to receive distinct recognition. President Hillyer was asked to formulate this view more explicitly, and he reported the following and the same was adopted:

The education of every individual should take six directions and should proceed as far in each as the nature of the individual permits. The six directions are:

- (1) The physical—the ideal being a sound, vigorous body sufficiently under the control of the mind to meet the demands of the essential conduct of life;

- (2) The vocational—the ideal being the ability to pursue skillfully a useful calling for the support of one's self and those dependent upon him;

(3) The cultural—the ideal being an interest in things outside of one's calling for the sake of rest, recreation, wholesome pleasure, inspiration and general knowledge;

(4) The civic—the ideal being patriotism and the knowledge and practice of civic forms and duties;

(5) The moral—the ideal being the knowledge and practice of justice in the daily associations of life; and

(6) The religious—the ideal being the belief in a Supreme Being having control over human destiny.

3. While we believe that full recognition of the present demand for vocational training should be given, and that increasing provision for its requirements should be made, we believe that there should be no lessening of the insistence on the importance of cultural education. We believe that the idealistic aspect of education should never be forgotten. Finally, we believe that there is no fundamental opposition between vocational and cultural education, but that they are, rightly understood, but different parts of one harmonious whole.

4. In what manner the demand for vocational training should be recognized the committee of seven has not yet specified; but the sub-committee on elementary schools recommends that more emphasis be placed on agriculture, while the sub-committee on secondary education feels that the so-called vocational subjects should be given the same recognition as the traditional favorites, and therefore recommends that the schools increase the amount of work now offered in the former, and greatly reduce the present list of high school constants which is made up of the latter class of subjects. This would give the high school student freedom to select his work with his chosen vocation in view. If, however, at the end of this course, he should decide to continue his education in a higher institution, he might find that he is not equipped with some of the "required subjects" of the college entrance lists. But the committee on higher education, referring to specialization, recommends that the scope of the university be enlarged "until a graduate of any first-class high school shall be able to obtain a four years' course largely in his chosen line, yet leading to the regular bachelor's degree."

5. It is the sense of the committee that an ordinary revision of the present course of study for the elementary schools is insufficient to meet our present needs, and that a more radical reorganization of elementary education is needed.

SOME SUBJECTS WHICH THE COMMITTEE HAS UNDER CONSIDERATION AND TO WHICH IT INVITES THE ATTENTION OF THE ASSOCIATION.

GENERAL SURVEY.

1. What are the essential phases of a complete or well rounded education? Consider vocational, moral and civic, cultural (including esthetic and religious), physical and any other phases.

VOCATIONAL EDUCATION.

2. Concept and methods of realizing vocational education. (1) Define the meaning of vocational education. (2) Is it merely an end among other ends, or is it the dominant end, and are the others—culture, discipline, etc.—to be organized as contributive ends? (3) Methods of reconstruction,—changes in the program as a whole and changes in individual subjects by elimination and substitution.

3a. Our educational system and the farmer. What can our system of education do to train our agricultural population to farm more intelligently and economically, more successfully? How can the life of a farmer be made so attractive that the boys and girls growing up on the farm will willingly, even gladly, remain there? How can the social life of our farming communities be improved through education? What changes, modifications and additions should be made in the curriculum for rural schools so that it may be more helpful in enriching and ennobling farm life?

3b. Desirability of instruction in the elements of agriculture in schools for rural communities, considered without regard to its feasibility—as the qualification of teachers, crowded condition of the curriculum, etc.

3c. How room or time may be obtained for agriculture and perhaps other new subjects in the curriculum for rural schools. What subjects, if any, may be eliminated? What else may be done to simplify this course of study and gain time?

3d. A general description of a course of instruction in agriculture for rural schools (1) for the first six grades, (2) for the seventh and eighth grades.

3e. Difficulties met in teaching the elements of agriculture in our rural schools.

3f. Agriculture in the high school. (1) Consider the reasons for including this subject in the high school curriculum. (2) Various secondary courses available. (3) Most suitable course or courses for a first-class high school of average size.

3g. Should agricultural high schools be established, or may the special needs of agricultural communities be met by elective courses in our present high schools?

4a. Manual Training—its desirability in grammar grades of city schools.

4b. Manual training in the high schools—(1) amount of time, i. e., the number and length of the courses; (2) brief description of available courses, indicating which are preferable.

5. Commercial courses in the high school. (1) Amount of time that may well be devoted to these courses. (2) Brief description of available courses, indicating which are the most suitable for North Dakota conditions.

6. The training of teachers of industrial subjects. (1) How can we fit our rural school teaching force for giving instruction in agriculture? (2) What should the normal schools do by way of training teachers to teach industrial subjects in the elementary schools? Should any other in-

stitutions undertake the training of teachers for the same purpose? (3) What should the colleges of the state do by way of training teachers of the industrial subjects for the secondary schools?

MORALS.

7. How can morals be best taught in our schools?

EDUCATION FOR CITIZENSHIP.

8. What elements must be included in an education for social efficiency? Consider the function of vocational training in this connection; also consider the study of history, civics, political economy and other means of making a helpful member of civil society. How can the subject-matter of our history courses be reorganized so as to make them more effective for this purpose?

CULTURE.

9a. No discussion of the ends of education is complete without a thorough consideration of the culture aim. What is meant by culture, and what are its essential elements? Is there a universal standard of culture, or is man's conception of culture subject to change with age and country? Give an up-to-date definition of a cultivated man. (See President Eliot's before the National Educational Association, 1903). Explain in what the high culture value of certain subjects consists, and consider whether there are certain other subjects that have no value for culture. Is there a real difference between a "culture subject" and a "vocational subject," or is there only a loose or general distinction?

9b. What should the secondary school curriculum include as culture material? How and to what extent does this "culture material" help to fit for a vocation?

9c. What is the culture value of the study of agriculture, manual training and domestic science, and the commercial courses?

ESTHETICS.

10a. What esthetic training should be given in the elementary school? Should it be a fundamental or a contributive subject? If a contributive subject, then state its relative emphasis.

10b. Music and art as high school studies. (1) What is their educational value? (2) To what extent should students be allowed to specialize in these subjects? (3) Present status in the high schools of North Dakota and elsewhere. (4) Obstacles to proper development in these lines of work.

10c. Music and art as college studies. (1) An inquiry into the value and fitness of these subjects as college studies. (2) Their present status in the various colleges and universities of the country.

10d. Music and art in the normal schools. (1) What work should the normal schools do in these subjects in the preparation of teachers? (2) What work are they doing?

RELIGION.

11. To what extent, and how, should religion be taught in our public schools? Difference between religion and ethics; between religion and

theology; between positive and natural religion. What bearing has a consideration of these differences on the place of religion in state education?

THE PHYSICAL WELL-BEING.

12a. An inquiry into the present sanitary conditions of the schools of the state; also into the efficiency of the formal instruction in hygiene.

12b. Describe an ideal course of physical training for the elementary grades. Is an effective course now generally given?

12c. Physical training in the high school. Describe an ideal course and equipment. To what extent should interscholastic contests be employed? What physical training, if any, should be made compulsory in the high school?

MENTAL DISCIPLINE.

13. Some people defend the study of certain subjects chiefly on the ground that they afford superior mental discipline, while others deny the validity of this argument. What does modern educational psychology teach about the doctrine of formal discipline?

HIGH SCHOOLS.

14a. The high school curriculum. If we except ten or twelve of the largest high schools of the state we find that most of the others offer only a narrow curriculum, made up almost wholly of the traditional academic courses. (1) Consider the justice or injustice of this policy to the community as a whole. (2) Consider the claims of manual training, commercial courses, courses in agriculture, pedagogy, etc. (3) Should the secondary schools of North Dakota do anything else in the line of vocational training—for example, should they organize trade schools?

14b. The constants in the state high school curriculum. Some of the larger schools that offer a variety of commercial, manual training and other courses complain that the list of constants is so large that their prior claim upon the student is a serious obstacle to his choice of subjects not thus favored. Is this a valid argument? Should any of the constants be removed to the elective list?

14c. Why do not more of our young men take a high school course?

COLLEGES AND PROFESSIONAL SCHOOLS.

15a. College entrance requirements. Should any of the usual fixed requirements give way to electives? Ought any training that is good for life to be accepted for admission to college?

15b. How may the special needs of our rural population—our farmers and our village communities—be recognized and provided for in our ordinary liberal arts courses, and to what extent is such provision desirable and possible?

15c. Should the student receive his cultural education at one school and his practical training for business or trade or profession at another, or should these be combined?

15d. Adjustment of the limits of the sphere of activity of each factor in the state educational system. (1) What is the proper mission of each state educational institution? (2) Need the state restrict or limit the educational work of the high schools? of the common schools?

15e. The necessity of institutions and courses of study which shall especially emphasize the idealistic aspects of education.

15 f. Is education for leadership consistent with democratic principles?

15g. Vocational education as the true education for leadership.

15 h. How many higher institutions train for farm life rather than out of it? College responsibility in developing courses looking toward improving rural social conditions.

15i. The most practical lines of engineering education in an agricultural state.

15j. Can the study of foreign languages be put on a vocational basis? Should it be?

MISCELLANEOUS.

16. The needs of pupils leaving schools at different ages. Compare the educational needs of grammar school pupils who are to quit at the end of the eighth grade with the needs of those who are to take a high school course, and of those who are even to take a college course. If these needs differ, then to which class should the curriculum be adjusted? What does the principle of democracy demand relative to each class?

17. Education and sex. (1) Should the training of boys and girls in the elementary school be the same? If not, how should it differ? (2) What difference, if any, should be made in the high school between the training of young men and young women? (3) In the College?

18. How far should special advantages be given to bright pupils, and how may this be done without prejudice to the ordinary pupils?

SUB-COMMITTEES AND THEIR REPORTS.

The problem before the committee was divided into three phases, pertaining respectively to (1) the elementary school, (2) the high school, and (3) the college and normal school, and a sub-committee of two members was appointed to each, to-wit:

1. The sub-committee on elementary education was instructed to investigate the following questions: (a) What additions should be made to the subject matter of the subjects already included in the elementary curriculum? (b) What additional subjects, if any, should be introduced into the elementary curriculum? (c) How should the courses be simplified? (d) What aids should be given to the teacher in addition to the course of study Supt. Wallace and Prof. Willard were appointed upon this committee.

2. The sub-committee on secondary education was requested to study the following: (a) In accordance with what principles and along what lines should re-adjustment be made? (b) What changes should be made as to general culture subjects, special culture subjects and vocational subjects? Supt. Godward and Prof. Schmidt were appointed upon this committee.

3. The sub-committee on higher education was asked to consider the adjustments needed in colleges and normal schools in the following par-

ticulars: (a) Preparation of teachers, (b) Entrance requirements, (c) Courses of Study. Prof. Knowlton and President Hillyer were appointed upon this committee.

These sub-committees are not limited to the specific questions here assigned to them, but are given full freedom to study their phase of the problem as the progress of their investigations may suggest.

We append here a brief statement from each of these committees. The committee of seven is in harmony with the spirit of these reports, but withholds action until further deliberation, and until after the association has had opportunity to discuss them at its next session.

REPORT OF SUB-COMMITTEE ON HIGHER EDUCATION.

To the Committee of Seven:

The aim of the State University should be to provide higher technical and professional training along all lines except those involved in the pursuit of agriculture.

The general aim of a college education is the mastery of the fundamental principles which are the basis for the particular department of professional study in which the student is interested. Yet while the colleges of the University should not be technical schools in the narrower sense of the term, each, except the college of liberal arts, should afford the student opportunity for definite specialization and practical professional training during the latter part of his course. To this end the present system of schools and colleges should be developed and enlarged until a graduate of any first-class high school shall be able to obtain a four years' course largely in his special line, yet leading to the regular bachelor's degree.

The central college of the university should be the college of liberal arts. All students should be encouraged to take as much as possible of its work, which should throughout emphasize the cultural aspect of education.

The work of the other colleges of the university should be so correlated with that of the arts college that there shall be no duplication of courses, but rather mutual aid and support.

Recognizing that ours is distinctively an agricultural state, we consider the work of the State Agricultural College as of central importance. We believe that it should take the lead in all movements to elevate the calling of the farmer, that it should provide all necessary facilities for the higher training and education of those who are preparing themselves for that occupation, and that it should be constantly preparing teachers and leaders who shall be well equipped to teach the farmer, both by precept and practice, to succeed in his occupation and also to live largely and nobly. That it may best accomplish this important work, we believe it should confine itself to the special needs of the farmer in the line of agriculture and the related mechanic arts.

The work of the State Normal School is to prepare teachers for the elementary schools. To this work they should confine themselves, and their equipment and courses should be extended and developed until they are

able to prepare teachers for any and all elementary schools. For this purpose their courses should be extended two years beyond the work of a first-class high school.

The preparation of teachers for our secondary schools of all kinds should be the work of our colleges.

We further recommend that in time the University should develop a graduate department of education for the higher professional training of teachers for our colleges, and all other lines of educational work.

P. G. KNOWLTON,

THOMAS A. HILLYER,

Committee.

REPORT OF SUB-COMMITTEE ON SECONDARY EDUCATION.

To the Committee of Seven:

Complying with the instructions of the committee of seven, we have prepared and beg permission to submit the following report:

In making recommendations of changes and adjustments in the curriculum for the high schools of North Dakota, this sub-committee believes that the physical, the cultural, the vocational and the civic are the essential interests of the high school student to be properly adjusted.

1. We find less need of adding to or taking away subjects from the present curriculum than of securing a flexibility that will permit of its more perfect employment to secure ends sought—namely, the physical, cultural, vocational and civil training.

The interests of physical training do not overlap or conflict with the other great phases of high school work, and the committee believes that with a suitable gymnasium and competent physical director a systematic scheme of physical training would be cheerfully organized by the several superintendents. We therefore urge the necessity for this equipment, which is now found in very few schools and for lack of which no adequate attention is now given to this phase of education.

The civic training is already provided for, as far as courses of study go, by the present requirement of American History and Civics and by the elective course in Economics.

The need of adjustment appears to be in the vocational and cultural courses, where the lack of elasticity is the chief difficulty. The key to the whole matter is the fact that the value of any course as cultural or vocational must be judged in the light of the pupil's future occupation. This being the case, it is practically impossible to specify any great number of courses which are strictly cultural or strictly occupational for all pupils. What is taken as culture study by the prospective lawyer or preacher may be strictly occupational for the prospective mechanic, e. g., manual training. For this reason we believe that the first step toward the adjustment of cultural and vocational courses is to reduce the list of constants to those courses that are clearly necessary to every high school student regardless of sex or future vocation.

The only courses which, in our judgment, meet this test, are three years of work in English, and the half courses in American History and Civics. We recommend that all the other courses offered shall be elective.

2. Besides the lack of flexibility, we find that the next most serious difficulty is the adjustment of the number of courses (and number of credits) allowed in each of the several groups. To remove this difficulty we recommend that in general the number of courses in any group be sufficient to permit the pupil to take at least one course in his favorite group as long as he is in the high school, the exact number of such courses being determined by the nature of the group, the equipment of the school, and local needs.

As a working basis we suggest the following number of courses in the various groups, each course counting as one credit:

| | |
|--|-----------|
| English—Composition and Literature | 4 courses |
| Latin | 4 courses |
| Natural Science | 5 courses |
| Commercial | 4 courses |
| Mathematics | 4 courses |
| Agriculture | 2 courses |
| Manual training or domestic arts, each | 2 courses |
| History, civics and political economy | 5 courses |
| German or French | 3 courses |
| Music | 2 courses |
| Drawing | 2 courses |

This sub-committee recognizes that every subject has some value for general culture and, further, that the various courses may have certain special values for securing the desired intellectual, moral, religious and esthetic culture, but it does not follow that we should make any specified amount of such culture compulsory. The groups of courses in science, history and literature are pre-eminently adapted to furnish material for intellectual, moral and religious training; and music and drawing should be encouraged as furnishing means for greater esthetic culture.

3. To make this flexibility of the high school curriculum possible, we recommend that our higher educational institutions accept with full credit any work credited by the state high schools, and that the university offer opportunity for the student to continue his work in the same lines as those pursued in the high school.

W. A. GODWARD,
C. C. SCHMIDT,
Committee.

REPORT OF THE SUB-COMMITTEE ON ELEMENTARY SCHOOLS.

To the Committee of Seven:

The aims of education and the special needs of North Dakota should be kept in view in a general way by all schools—elementary, high, normal and collegiate. But besides that each has its immediate aims, its special part of the field, to cover. In deciding what part shall be taken by the elementary school, the beginner of the program, your sub-committee has been guided by the following principles:

1. The pupil's school work shall be within the range of his interests and capabilities, remembering that

(a) Education begins with his environment.

(b) Education begins with utterly unspecialized knowledge.

2. Any school or any grade should aim at what will give the pupil the most valuable all-round training if his school education should stop at that point.

3. Emphasis should be put upon those aims and that material that are fundamental and basic to the other aims to be accomplished.

4. Elementary education is synthetic and inductive, leading toward general concepts and principles, while secondary education deals very largely with the generalizations and the deductions from them.

In the opinion of your sub-committee the first three principles should govern, in the order given, the selection of aims and material. The pupils' capabilities and in the main his natural interests are paramount in determining what he should do. Aims and material inconsistent with this principle are realized or utilized only at a great disadvantage. The second principle, that of giving the pupil for his time the greatest possible return at that time, is opposed to the plan of laying out a course for the eight or twelve grades with only those pupils in mind who are to complete the course. When we think how few, comparatively, finish high school or even the grades, it is at once evident that to lay out courses with only those in view who are to finish the course, is to consider the needs of the few in preference to the needs of the many, and at that to favor those who need help least. Further, it is yet to be shown that courses made out in accordance with the principle we have given would work any injury to those who complete the courses. To one who thinks of education alone in the schoolroom, our third principle may seem inconsistent with our second. When we think of education as consistent with life, however, this contradiction disappears, and the third law serves to emphasize an important feature of the second that, without it, is easily overlooked. The last principle will, it is believed, be of help in deciding some questions that arise in connection with the grammar grade work.

We have stated that education begins with the environment. One of the first things the child discovers is the need of means of expressing himself to others. He hears certain sounds, and gradually gets to associate them with the meanings that others seem to give to them. This need of communicating with others is an ever-present need, ever widening as one's acquaintance with the world widens. In the words of the Committee of Fifteen:

"Language is the instrument which makes possible social organization. It enables each person to communicate his individual experience to his fellows, and thus permits each to profit by the experience of all. The written and printed forms of speech preserve human knowledge and make progress in civilization possible. The conclusion is reached that learning to read and write should be the leading study of the pupil in his first four years of school."

We have classified "ability to communicate with one's fellows" as of special importance from the vocational standpoint, but from any point of view,—culture, or civic, moral or religious training,—every one would put

this in the forefront of the work of the elementary school. So important is it that by common consent it is given double the time given to any other line of work, and our pupil learns in the reading lesson how to gain the thoughts of others, and in the language period how to express his thoughts to others.

The environment itself is of two kinds, the natural on the one hand and on the other all that environment, constituting human society, consisting of the child, of the family, the school, the neighborhood, and gradually widening out with increasing education to include the county, state, nation and world.

The natural surroundings we aim to reach at present through nature study, home geography, systematized geography, and later through agriculture, botany, physics, etc. The social surroundings we attempt to introduce to the pupil through history, and civic work. It is to be noted that to the child this distinction does not exist, hence in teaching him we need not be unduly worried that we cannot separate primitive history from our primary geography lesson.

No investigation of either natural or social environment can go far without the need of numbers in the expression of comparative values. Further investigation on the pupil's part merely increases the need. To quote again the Committee of Fifteen: "Number is the first great step in the conquest of nature. It makes possible all the other sciences of nature which depend on exact measurement." We may add that as a measure of time it is necessary to any considerable knowledge of history; as a basis of statistical study, it is necessary to any study of social problems; and above all else, as a measure of time, of value of commodities, and of money, it is an absolute essential to any understanding of modern business—to the support of one's self and family. Thus out of the child's widening environment grows the demand for the five major subjects—reading, language, geography, social studies and arithmetic.

To these, custom, perhaps moral and physical needs, and in many states, the law, adds a sixth. The child, even before he enters school, finds that environment in the shape of hot or cold weather, green apples, etc., may affect his comfort very unfavorably; also that good food, comfortable clothing, etc., adds to his happiness. It is only a step from this to an elementary study of hygiene. When we remember that this environment of food, drink, clothing, weather conditions, is always with us, that it affects us by increasing our energies if we fit ourselves to it properly, and by decreasing or utterly destroying our energy and capacity as we fail to fit ourselves to it, and it to us, it would seem that it, too, is a line of investigation, not only possible to the child mind, but of immense importance to him then and in later years.

When we remember, too, that the aim is not merely a healthy body, but a physical mechanism that is adaptable to as great variety of purposes as possible, it is evident that physical culture is also an aim to be considered.

It will be remembered that our first principle of selection of work for the elementary school was, the child's interest and capacities, and

these especially as directed toward the mastery of his own environment. This principle, followed out, has given us six important lines of investigation. The other factor, that the child's knowledge is unspecialized, contributing to this principle, adds nothing to these six lines, but it throws out a caution that as these fields of knowledge are not separated in the child's mind and experience, we need not be unduly hasty in trying to separate them in our work.

When we apply the second principle, that the aim of each year's work should be the most valuable training at that particular time, we find it but re-enforces the demand for all these lines of study. For all of them deal with the environment that surrounds the child, and all widen out with expanding knowledge to the environment that surrounds the man. No one of them deals with a field absent from experience at any stage of life; consequently no one of them should be omitted from the child's investigations at any stage of his progress until the stage of specialization is reached.

The third principle, that the fundamental and basic should be aimed at, but adds to the demand for each of the lines of work indicated. In fact, in the choice of general lines of work, the three principles might have been merged in one. The value of their separation will appear when questions of what to investigate in each line are taken up.

If now we refer to the conclusions adopted by the general committee, we find four of the six main aims of education there mentioned well begun in the six lines of study we have laid down for the elementary school. The physical aim is cared for in the courses in physiology and physical culture. Every one of the six courses is of value vocationally--and five of the six (omitting arithmetic) lead toward culture and are necessary to any considerable degree of it. Civic training is aimed at directly in one line of study chosen, and certainly reading and geography will contribute much to it.

The moral and religious aims of education are not directly provided for by the six lines of study. The religious aim is so important that a special institution is set apart by society to supervise religious instruction. It goes without saying that all education is one, and that the family, the school, and other institutions, should help the church in this work. The peculiar temper of the American people, due in large part to their origin in religious struggles, make the how of this help by the school an exceedingly difficult problem--so difficult that it should, in the judgment of your sub-committee, be assigned to a committee of its own for solution.

The moral aim, too, is apparently neglected, but only apparently. Morality in itself is a pure abstraction. We are urged not simply to be good, but to be good for something. That is, morality inheres in our thoughts and actions. Every purposeful act of men has its moral element, every institution of society has a moral view point from which it may be judged. So courses of study that deal with the thoughts, the deeds, the institutions of man, offer the best of moral training. The history lesson, the geography lessons, the physiology and the reading lessons, and above all the discipline of the school, furnish abundant illustrations of every moral principle.

It may be, and probably is, wise to supplement this with occasional periods of moral instruction. But it will always remain true that the best moral lessons gotten by child or man are those that grow out of other things. This being true, our neglect of moral education is only apparent.

When we inquire as to the practical bearing of all this, the general committee will remember the many demands made by the advocates of civic, moral, vocational, manual, and various other kinds of training, for additions to the elementary courses. On the other hand there are many and loud complaints of its overcrowded condition, and the last state association passed a resolution calling for the simplification of the course. In the feeling that only by an investigation of educational aims and values can any of the questions thus raised be answered, we have as best we could analyzed the main aims of education, and found the place of each of the major subjects in the courses. To our minds the study has already shown where several important modifications are likely to arise.

If the essential aim of language instruction is facility in the art of communication, it will be hard to justify the continuance of grammar in the elementary school. The help which formal grammar, beyond sentence analysis, is able to give to a pupil's language is very little. The main justification left for grammar is as a formal discipline, and your sub-committee believes that with so many things pressing for a place in the course, formal discipline alone is an insufficient ground for the insertion of any subject in the course. Further, since we talk or write because we have learned something we wish to tell to some one else, and the very telling of it helps, too, to clear our own ideas of it, it follows that language work may be helped by and may help the other subjects of the course. All good teachers should be helped to use this truth much more than is the case today, especially in the rural schools.

Again, geography is in the courses in answer to the questions of the child and the man about his natural environment. What are nature study or elementary agriculture that they should be separate from it? Has not the fact, too, that the phenomena of nature go back to physical geography for their causes led to too much systematic physical geography being forced into grade work? We believe, too, that geography as an aid to vocation or to culture calls today for more of the commercial and industrial element than has heretofore been common. In North Dakota we believe much emphasis should be placed on agriculture.

When we think of the preparation for citizenship and society with which our pupils leave the grades, especially in rural schools, it is at once evident that our present history and civic courses are very largely failures. This may be due to their inherent weaknesses, or it may be that the problems of citizenship are beyond the grade pupils' understanding. This last is certainly true of many of them. Your sub-committee is firmly of opinion, however, that an elementary course in civics (especially local civics), some simple principles of economics, and some of the laws of business transactions, could be arranged for a seventh grade (and we are not sure but for a sixth grade), which would prepare them for citizenship better than do our subjects of history and civics as generally taught:

at present. As to history itself, we deny that history for the grades should attempt to be a catalogue of all the important things that have happened in America. Nor should they go to the other extreme of shooting over the pupil's head in the attempt to cut out details and show "the development of institutions." Prof. Gillette's paper on the "Socialization of History," before the State Historical Society, suggests a history that would, we are confident, give a pupil a clearer idea of American history in one year's time than he gets at present from the whole course. Whoever writes the history, at any rate, needs to study the principles of elementary education as much as he studies his history.

When we remember that number arose as the means of measuring groups and quantities, it suggests the method of approaching it in primary grades, and also in many cases in upper grades—that of actual measuring, weighing, and, in upper grades, problems in township taxes, etc. Much of our use of arithmetic in real transactions or vocational problems is under circumstances when we have no paper or pencil. This would seem to require more emphasis than is customary on mental arithmetic. Business men complain of inaccuracy of pupils' computation generally. Let us have more drill, then, on fundamentals, especially addition and multiplication. Time can easily be saved for these things by cutting out arithmetic puzzles, useless tables, much of denominate and compound numbers, etc. Possibly time can be found for some work here on the laws governing the transactions the pupils are studying.

Your sub-committee is well aware that numerous questions, as the introduction of manual training, the share that music shall take, the share of drawing and to what extent it shall be mechanical drawing, need discussion as much as some of the things we have mentioned. We have kept in mind the resolution of the general committee, that a mere revision of the present elementary course is insufficient to meet our present needs, and our recommendations look toward a thorough reorganization of "Elementary Education in North Dakota." Hence, we have endeavored to get a view of the whole field of education; to find the principles that should govern the selection of aims and materials for the elementary school; to investigate the values of the major courses; and finally to recommend several modifications of each of them. We do not wish to dogmatize—to say that all these changes should be made. The extent and method of the modification is a matter of further investigation. We close with the hope that if it is not made now it will be made some time, for the most of the questions we have raised are live questions, and will have to be answered sooner or later.

Respectfully submitted,

B. A. WALLACE,

D. E. WILLARD,

Committee.

WHAT CHANGES, MODIFICATIONS AND ADDITIONS SHOULD
BE MADE IN THE COURSE OF STUDY FOR THE RURAL
SCHOOLS, SO THAT IT MAY BE MORE HELPFUL IN
IMPROVING THE PRESENT CONDITIONS OF OUR
AGRICULTURAL COMMUNITIES AND IN ENRICH-
ING AND ENNOBLING FARM LIFE.

SUPT. MATTIE M. DAVIS, CASS COUNTY.

This assumes what is common knowledge, that life on the farm is not as desirable as it might be—that it does not attract people and especially the young, to choose agriculture as a business and the farm for a home. As farming is our largest single industry, whatever concerns the farmer concerns us all. He ministers to the common need and his future is of vital importance to the nation. Dean Davenport says, "That the most significant educational fact today is that men of all classes have come to look on education as a thing that will *better their condition*; they mean, first of all, that it will make their labor more effective and more profitable; and second, they mean something that will enable them to live fuller lives. They have no very clear idea how it is to be done, but the betterment of their condition, through education, is the plain purpose of all men everywhere, and whether we realize it or not, we are engaged in the most stupendous educational, social and economic experiment the world has ever undertaken—that of universal education—and whether, in the end, education will prove a blessing or a curse, depends upon our skill in handling the question."

Because of this and of the faith of our people that education can provide a remedy for our complex social problems, we are brought face to face with the question of whether the system of education now used is the best that can be provided, or if not, where can it be bettered; for it is being severely criticized, not only by those who feel that it has not met the needs of the people, but by those who would seek notoriety. Magazines and papers are publishing startling account of the "inefficiency" of the public schools, as a sort of companion piece to the latest gigantic fraud in some of our city or state affairs. This may have its use—it forces us to study the weak places and see where we need to strengthen, rebuild or abandon old positions. We are not so unwise as to tear down the entire structure at once, for if great changes are needed, there must be a gradual growth—it may mean the creating of new ideals of life for the public generally. We are accused of measuring success by a cash standard—this may be true in part, but our people generally, and especially those of the west, want money only for what it will buy in comforts and the refinements of life for themselves and their families. They want their children educated and they ask the educational people to provide courses of study that will help the boys and girls to be honest and useful members of society.

In response to the general request, various educational committees or commissions have been appointed and are studying social questions in

the hope that as they know the needs, they can suggest the remedy. These are at work in every department of education but are especially active in our elementary and country schools.

In the course of study for the country school, as an agricultural state, we are vitally interested. It seems to be the general opinion that the real problem of the country school is not understood—the relation of the country school to country life—that we have no school especially for the farmer's children, but use a feeble imitation of the city school. For back of every question that has to do with better farming, better homes, and better living, is the question of better rural schools. If we are to better farm conditions and create a desire for people to stay on the farm, we must begin with the boys and girls and *grow them*. We have been educating them away from the farm—we must now educate them back to it, we must bring this education to them, right where they are now on the farm, for if they get a taste of city life, the farm often becomes distasteful to them.

The matter of farm desertion is forcing itself upon us. England has already struggled with this question and gone down in defeat, presenting today, we are told, a decadent agriculture and over-crowded cities, teeming with ignorant and vicious elements. Germany is still in the struggle, while similar conditions prevail in other European countries, those succeeding best in which there are small holdings and the people live together in small villages. One dangerous aspect of the struggle has been landlord proprietors and tenant farmers. It is now urged by our thinking men that the United States strongly tends in the same directions for that very reason.

Our own state furnishes conditions which we must consider. We have the smaller farms of 160 acres, owned, cultivated and occupied by its owner for a living, and against this, we have the landed estate owned by an individual or a syndicate and farmed for commerce. In the eastern half of North Dakota large holdings are common, while a single company in Cass county owns sixty-five sections or 41,600 acres, all under cultivation and all farmed by renters except two 960-acre farms which are under the direct supervision of the owners. Another company owns between 20,000 and 25,000 acres. Dalrymple Bros. own thirty-one sections (19,840 acres), farmed by themselves. They put sets of buildings occupied by a foreman, on every 3,500 acres. There are similar farms in all the older settled portions of the state, but probably the greater number in Cass and Traill.

In addition to these estates we have a great number of farmers who own from one to five or six sections, who either cultivate the land themselves, or it is done by renters. We have in the east half of our state about three sections out of every township which is still unoccupied, owned by the government or by speculators. The average acreage per owner is from one-half to three-quarters of a section. From what we can learn of the western half of the state, we find that the holdings generally are smaller, as the settlers have taken advantage of the homestead law, which gives to the head of the family 160 acres, and let us hope this

means farmers who will live on and cultivate the land for a living. There are thousands of acres of unoccupied land in the west, in one county alone about a quarter million acres.

These conditions must of necessity affect our rural schools. The large farmer sends his children to the nearest graded school with their own conveyance, or if this is not practicable, he moves the family to a town having good educational facilities, while he goes back and forth to the farm, which is under the management of a foreman. It is only a question of a short time when what was to be temporary, becomes the permanent home, and the farm is rented. His children are educated away from the farm and usually have no wish to return. This leaves us practically with the children of the small farmer and those of the renter, who changes often from farm to farm. The renter is more often a young man, and has no children or none of school age, and has no particular interest in the school. If he has a family of children, they are often obliged to work on the farm, especially the boys, who are almost entirely deprived of school privileges. Whole districts have not a child enrolled except those of renters. An exceptional case is a township of land, comprising three school districts, in which there are but seven resident farmers. The tendency, in such localities, is a short term and a cheap school. We, accordingly, find small schools whose entire enrollment is from twelve to fifteen pupils, with an average attendance of six or eight for the school year, with perhaps one pupil in a class. A small rural school does not arouse sufficient interest in parents or pupils to bring about the best results. We have schools so weak they cannot draw a full breath—the older boys and girls rebel against them entirely or else are bribed to stay until they complete the eighth grade, when they may go to a high school or perhaps to some of the state institutions.

In some states consolidation is solving this question by uniting several weak schools and thus providing a strong central graded school and even a high school, fine grounds and better prepared teachers. Supt. Kern of Winnebago county, Illinois, has solved his problem in this way. It is said of him that "He has *perfected* consolidation, and school-ground improvement; has secured local support and general adoption and has *nationalized* it by lectures, reports and a complete story in book form." For our encouragement we may say he is located in a thickly settled community (densely settled as compared with our counties) of an old state, with good roads, trolley lines, telephones and people of settled habits who own their homes. But honor is due him none the less, for he has been and is devoting his time and talent to the uplifting of the schools of his county, and his success is assured.

While the school law in North Dakota provides for it, we are not ready for consolidation. With one or two pupils to a section of land, too large a territory would be required to secure the necessary pupils for a central school. They could not be transported ten or twelve miles in our climate and over our roads. There are few localities where this could be used to advantage and where it is possible. Where it is practicable, the conditions are ideal, for the country furnishes the actual experience

with the concrete things of life. The boy and girl on the small farm have responsibilities put upon them and so bring to school a preparation which no amount of lessons in nature study, hand work or lessons in school occupations can possibly give.

The city child is of necessity deprived of this training. It does not belong to his environment, but he enjoys what the country child lacks—social privileges. There is no feature of country life quite so disheartening as the social side. While the telephone and rural free delivery do much to connect the farm with the business world, keeping the farmer in touch with the markets and the world's work generally, it would seem as though it might be as easy to bring it in touch with the social world; that we might have many of the comforts and pleasures of the city without its undesirable features, but this has not been generally realized. Big barns, costly machinery and fine stock, often mean an uncomfortable house, and make hard work "the portion" of every member of the family. The work is too hard, the hours too long and the pleasures too few and far between to appeal to a hired man or a hired girl—they prefer the city with its shorter hours of work, wages at week-end, its bustle and its amusements. The farmer's family has no choice, so for them the long days of toil, no wages, as it seems to them; and no desirable form of recreation. The isolated way of living is not conducive to social progress and as the home interests have not kept pace with the material interests it is not strange that farmer's children are attracted to the city.

We cannot wait for consolidation—it is too slow. What shall we do to hasten its coming and to help those for whom its later coming will be too late? What shall we add to our course of study and what shall we eliminate so that the pupils in school can not only be brought into close touch with the *life of the community* but that the school as an institution can be made more useful to the community as a whole? The idea of making the school the social center is being slowly worked out in numerous city schools. How can this idea be developed in the country school? In a number of cases, we could combine these small schools with the nearby village school, which has perhaps forty or fifty pupils; this would strengthen the school in numbers, and allow more and better trained teachers. A course of study could be arranged bearing upon the community life, with facilities for teaching manual training, agriculture and home economics, providing the eight grades and perhaps two years of secondary work, while the one-room country school could use the work for the eight years only. Several of these country-village schools by combining, could afford to hire supervisors in these subjects who could visit each school, supervising the work and teaching as much as possible—the regular teacher taking charge of work when the supervisor is in other schools. These subjects that bear directly on the home and community life should reach the pupil while his ideals of life are forming and while he is at home on the farm.

We need not eliminate the subjects now required, but let us teach the essentials and cut out the dead timber; we want better teaching and less dawdling. Teach the pupil to read—that is his inalienable right. Every

child should be taught to write legibly and to spell correctly. Teach the fundamentals of arithmetic; reading and writing numbers; master the four processes: Addition, subtraction, multiplication and division. Strange that eighth graders can't be trusted to do problems involving these four operations accurately. Common fractions, common demicals, common forms of compound numbers, common percentage, common simple interest—one method, common problems pertaining to every day affairs, much mental arithmetic, and problems without figures, common business forms, checks, receipts, etc. Leave out the non-essentials. We need more language and composition work and less technical grammar.

Our supplementary reading through the grades should provide for much of our history, by way of biography and story. Children should know their own state history, and our Indian myths, while a text for eighth grade should contain the essentials and be free from long dissertations on wars, battles and bloodshed. We need only the elements of civics in the eight years course—all advanced work in this subject belongs to the high school.

Our revised course in physiology and hygiene makes that subject practical and helpful—the health of the individual and of the community. Geography should begin at home. Study the home surroundings, gradually working outward from the things the child sees and knows to the things he must imagine. The study of the landscape of the nearby country; the study of our streams that almost forget to run; the story of our prairies; the story of the "bad lands;" the study of the soils; studies that have to do with the location of homes and of towns; of the common plants; of domestic animals; of our industries; grain growing; cattle and sheep raising; our coal beds; irrigation, and our new forest reservation. North Dakota surely furnishes a variety of subjects. We have included both nature study and agriculture in this course. If we have no suitable text-books for these abbreviated or new subjects, we can have them. If we know what we want, any book company will have them ready in a few months.

Encourage the co-operation of pupils, especially for the improvement of the school and its surroundings. Maine has a school improvement league—one object only we mention, and that is to improve school grounds and buildings. It is not so much in the doing of new things but the importance lies in the fact that the schools are organized for these definite reasons and that they carry on the work from year to year.

Here is an opportunity for the contests in corn growing, and for cultivating strawberries, potatoes, onions or any vegetable or grain. Industrial exhibitions at our state or county fairs are to be encouraged. School gardens are recommended, but with us they are a failure.

Bring together for discussion and acquaintance the teacher and the patrons of the school. Make the schoolhouse a meeting place for young and older people, where music, art, social culture, literature, study of farming, and in fact anything that has to do with country education, may be fostered. The farmers' institutes and school officers' meetings can be made great factors. A serious mistake was made when the farmers' excursions to the Agricultural College were abandoned. No one can estimate

their educational influence to the farmer and his family. They ought to be renewed, especially as J. J. Hill states "that we are wasting our resources and that within a quarter of a century, with a population of 150,000,000 people, we will find it as hard to feed our unemployed as England does today. That we should insist upon better cultivation of the land, for on that one item depends our future growth and prosperity."

We need more efficient supervision. The teachers as well as the county superintendent ought, in some sense, to be leaders of the farm community, and should take the lead in inspiring every one to read better books, buy better pictures, and to take more interest in the things that make for culture and progress. They ought to understand the country community, ought to have some knowledge of the problems the farmers have to face, ought to have some appreciation of the peculiar conditions of farm life.

That the teacher may be all of this to the neighborhood would mean a person of mature years, a resident of the community, and that he must be paid a living wage. Then and not until such time, will our brightest and most enthusiastic young people make the country their choice of home.

Fourteen years ago, there was organized at Hesperia, a small village twelve miles from the railroad, an association composed of villagers, farmers, teachers and pupils, whose object was to promote better rural school education, to furnish wholesome entertainment, to cultivate a taste for good literature and higher ideals of citizenship, and to better all the surroundings and conditions of rural schools. Some of the results of this movement are, better school surroundings, better school buildings, more attractive school interiors, better teachers, improved character in children and adults, and opportunities to gratify literary and musical taste. The movement has spread to other counties in Michigan, and to other states. It would benefit many communities in the northwest.

A decade of such work binding together the home and school would revolutionize farming and farm life in this country, and as Supt. Cotton, of Indiana, says, "would be the forerunner of the greatest industrial development this country has ever known. Men and women so trained would work for the joy that comes from doing a worthy work well; for the satisfaction that comes through preparation. Along with this would come larger self-respect and larger returns in dollars and cents."

EDUCATION FOR SOCIAL EFFICIENCY.

PROF. JOHN M. GILLETTE, UNIVERSITY.

There is a growing chorus of voices that education into learning for the sake of learning, into science for the sake of science, is largely empty and ineffective. President Angell of Michigan University, said in his baccalaureate address of 1904: "The world is full of learned fools. There is an endless variety of them. Some are vain and chattering pedants, who fill the world with noisy clamor like a company of crows over their quiddities and odds and ends of knowledge. * * * I recall men of capacious memories, who with the utmost ease and complacency swallowed all the learn-

ing which could be fed out to them by a whole college faculty, but the learning never got out through their nerves, or their tongues, or even through their muscles to touch and stir the world." Professor Cattell, of Columbia, University, recently wrote that he doubts if interest in pure science should precede interest in practical or applied science. He went so far as to indicate that if he thought his work as psychologist was on the basis of science for the sake of science he would feel more akin to the sword swallower and the sleight of hand performer than to the business man. In a speech before Princeton men in Chicago some time ago, President Wilson of Princeton University, depreciated mere culture. "We want," he said, "useful men, not men who have learning for learning's sake, and who think they are better than others because they have something in their heads which is useless. * * * I do not believe that the natural, carnal man was meant to sit down and read a book. I myself had rather see things than find them out from the printed book."

Under the regime of this mere academic training system we have witnessed a breakdown in our social and educational life. Our political life has been debauched and rotten. Our economic and industrial affairs have become abusive and honeycombed with graft and injustice, and are turning more and more men into the channels of poverty and criminality. Crime and pauperism in this nation costs our people anywhere from one to one and a half billion dollars per year and both are increasing. Charity and philanthropy are mere palliatives, not curatives. Education has not made progress in keeping with advancement in material achievements. It has even lagged along behind. Compulsory state education has not kept the schools filled for one-half of the elementary school period. Both in quantity and quality our educational system is insufficient.

Education is only partly responsible for our economic, political and social ills. Revolution in methods of transportation, production of material goods, and organization of business have thrown on us new conditions before we realized their import, and overwhelmed us before we could get our viewpoints and principles of regulating them changed and adjusted to meet the new order. We are beginning to discover what is wrong and what must be done to remedy certain bad conditions. Again ignorance of the system under which we have been living on the part of the great masses of our citizens is responsible for much of our troubles. Much of the seeming debauchery has been due to lack of knowledge of the real significance of what their transactions meant for the public on the part of business undertakers in all lines. The ignorance of the nature of the social system under which we work on the part of the great mass of our citizens has alone prevented the checking and correction of abuses as they arose. Possibly our schools have been to blame for not recognizing sooner the evil tendencies and putting into courses of study the matters of information essential for their correction. But we must more and more see that our present evils and issues have arisen rather out of the new industrial order which has come upon us unawares, and from the ignorance of business undertakers and the mass of citizens alike as to the meaning of the drift of things rather than to the growing innate bad-

ness and immorality of our people. I am sure we must hold that morality comes with enlightenment. Sufficient knowledge of our political, economic, and social system will bring the cure we seek of the evils.

In a very direct way education has been responsible for the pathological conditions of society. A conservative estimate places the annual cost of our criminal and paupers at a billion and a half of dollars. This gives no estimate of the positive misery, atrophied character, swamped and mutilated ideals, and putrid and malignant social conditions. Weighed by any spiritual standard the loss and misery is astounding. The system is condemned which perpetuates it. I want to show that a lack of proper training is partly responsible for crime and pauperism. Our whole social system is of course to blame. But education can be loaded with its share of guilt.

First as to crime. One of our best authorities, Carroll D. Wright, says, "It is statistically true that enough of knowledge to be of value in increasing the amount and quality of work done, to give character, to some extent at least, to a person's tastes and aspirations, is a better safeguard against the inroads of crime than any code of criminal laws. The kind of labor which requires the most skill on the part of the workman to perform insures him most perfectly against want and crime, as a rule. This statement is fortified by such statistics as are available. Of 4,540 convicts, at one time in the state of Massachusetts, 2,991, or 68 per cent were returned as having no occupation. The adult convicts numbered at that time 3,971. Of these 464 were illiterate; of 220 sentenced during the year, 147 were without a trade or any regular means of earning a living. In Pennsylvania, during the recent year, nearly 88 per cent of the penitentiary convicts had never been apprenticed to any trade or occupation; and this was also true of 66½ per cent of the convicts sentenced to county jails and workhouses in the same state during the same year. In Mr. Frederick Wine's recent report on homicide in the United States, in 1890, it is shown that of 6,958 men, 5,175, or more than 75 per cent of the whole, were said to have no trade."

Morrison, one of the highest authorities on juvenile delinquency in England, states that 77 per cent of juvenile offenders had not been apprenticed to any trade, and that about 75 per cent of adult prison population were without definite vocation. In the general community laborers of all kinds amount to only 20 per cent of the population over fifteen years of age. "Therefore, according to the most moderate calculations, the class of low-skilled workmen is between three and four times more numerous in the prison population than in the general community."

Booker T. Washington writes of the negroes of the south that "90 per cent of the colored people in prison are without knowledge of trades and 61 per cent are illiterate."

I could give more statistics bearing out the point made by the above citations. But it is amply proved that lack of a skilled calling has much to do with producing criminals.

Second, let us consider poverty. Our charity organizations have compiled statistics of the causes of pauperism in all the chief cities of the world.

The per cents ascribed to various causes agree in cities of Europe and America. One of our best authorities, Dr. Chas. R. Henderson, gives tables of these studies for Baltimore, New York, New Haven and Boston. I will give only the chief classes of causes and the per cents of pauperism each is responsible for. Causes indicating misconduct, 25.10 per cent, of which drink is responsible for 15.28; lack of normal support, 6.31 per cent; matter of employment, 31.57 per cent; matters of personal capacity, 34.08 per cent; unclassified, 2.85.

I have studied these chief causes and minor causes as given in this table, and I am convinced that there is ample opportunity to connect poverty with the unskilled condition of the individual. Hardly one of the headings could be exempted from the charge that back of it as a condition which account for it as a fact in the individual is the want of special, technical training, the ability to get and keep work, and the lack of a character of sterling worth due to the fact that the individual has not had his life organized and disciplined through the constant and definite demands special training imposes. For instance, the sub-heading "shiftlessness and inefficiency," is made responsible for 7.51 per cent of crime. I should claim that shiftlessness and inefficiency is the result of definite training. It is a habit of life ensuing upon persistent idleness permitted in youth. Observation of life and physical studies have made it clear that the normal state of children is one of activity. They love to expend energy in accomplishing things, not only in play but in suitable tasks. Proper training would utilize the love of action and of making effort in childhood and youth, directing it in specific channels and organizing it into a life habit. Love of idleness would not result. Thus laziness is merely a sign of a lack of training and skill, a lack of organized activity through which the individual finds satisfaction in expressing himself. And so for the other items. It would be safe to say, then, that a very large per cent of poverty is caused directly or in the second stage removed by a lack of practical training. We would not be warranted in saying more than that the per cent is a very large one. To establish the fact is useful to educators. In respect to both crime and pauperism education must be so readjusted as to furnish the preventive. The best medical practice is turning to preventive devices rather than to cures. Our social pathologists have long contended that this is the proper treatment of crime and pauperism. Charity does not cure, it only temporizes. The best penological institutional such as that at Elmira, New York, are reforming criminals, not punishing them. They are doing it by both intellectual and industrial processes, the latter being the dominant one. We must remove the causes which produce our defectives and delinquents or we will always have larger and larger crops. Education cannot escape its responsibility in the matter.

Another respect in which our educational system is shown defective is by considering school attendance. It is abundantly shown that our schools are not holding the children. Many studies have been made of the matter. The most recent and thorough is that of Thorndike. This is his statement for the country as a whole: "At least twenty-five out of 100 children of the white population of our country who enter school stay long enough to learn to read simple English, write such words as they commonly use,

and perform the four operations for integers without serious errors. A fifth of the children (white) entering city schools stay only to the fifth grade."

We must notice the causes of this elimination, Thorndike says: "One main cause of elimination is incapacity for and lack of interest in the sort of intellectual work demanded by present courses of study." He further mentions poverty, without measuring its influence, and the character of population surrounding the school, which evidently includes a multiplicity of causes. He couples age with incapacity and interest.

Professor Woodward, who investigated elimination in the St. Louis schools has this to say as to the cause. "First, a lack of interest on the part of the pupils, a lack on the part of the parents of a just appreciation of the education now offered, and of dissatisfaction that we do not offer instruction and training of a more practical character." He goes on to say that boys and girls in the energetic period of twelve to fifteen years of age find their controlling interests in doing things. "Their controlling interests are not in committing to memory the printed page; not even the arithmetic serves to reconcile them to school hours and school duties. They long to grasp things with their own hands; they burn to test the strength of materials and the magnitude of forces; to match their cunning with the cunning of nature and of practical men."

Professor C. R. Henderson, writing of the causes of crime, says: "It is almost certain that the custom of confining growing boys to the mere conning of book lessons frequently irritates and maddens them, excites disgust for studies which seem to have no relations with their lives, and gives their muscles nothing to do. One thing shines out clearly from the record thus far studied: That the lack of instruction in manual and trade processes and of personal, moral and spiritual influences must be charged with much of the tendency to crime."

The statement of the now famous Massachusetts commission on industrial and technical education relative to the children from fourteen to sixteen years of age investigated bore on this point. The salient features of the commissioners' conclusions are that the first years of the employment of those children who commence work at fourteen and fifteen are often waste years; that the children leave school because neither they nor their parents see any practical value in remaining there, but that a large majority of the parents could afford to keep their children in school for a year or two longer, and would do so if they had the opportunity of securing a training which would make for industrial efficiency.

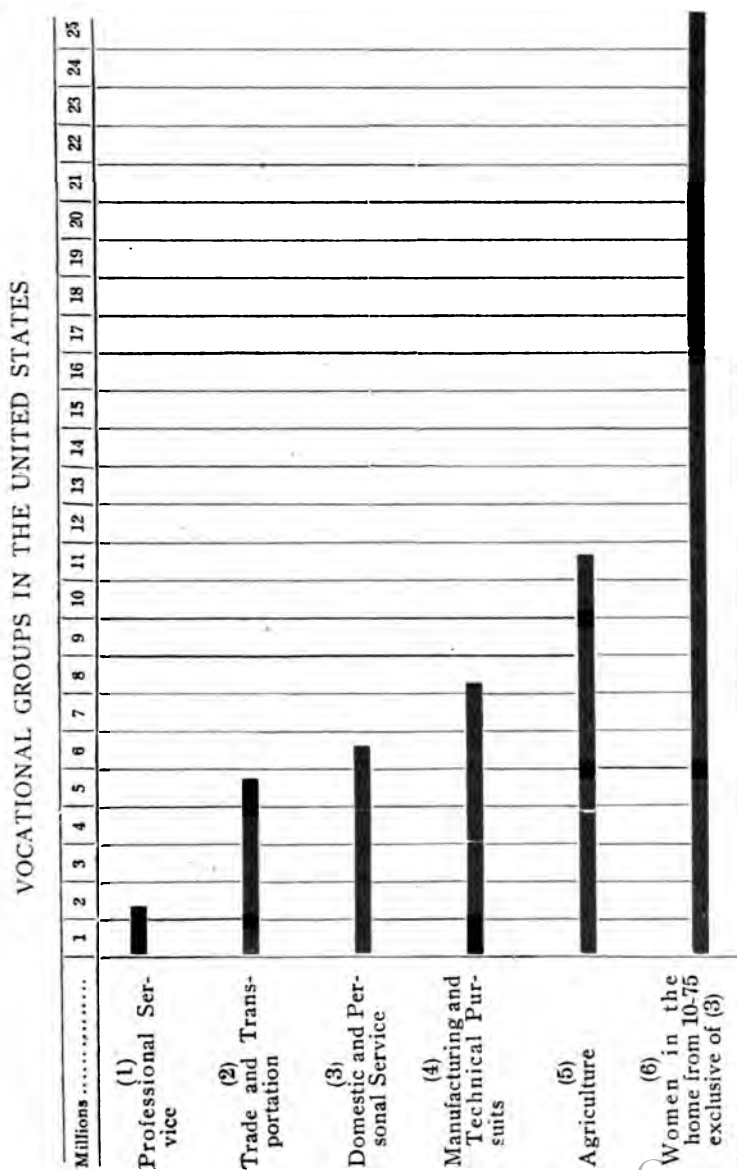
Speaking of the benefits of the school garden, the principal of the Carp, Ontario, Canada, public school, writes as follows: "It is impossible to overestimate the value of school gardening on our boys and girls. Our boys and girls have now a reverence for life unknown before, and it has awakened in them, as nothing could do, a deeper interest in all life around them. It has helped to make school life a pleasure. Now the boys make the excuse to get to school instead of the excuse to remain at home. It has aroused the interest of the entire community. The parents take a pride in our boys and girls in the school garden, and never fail to bring their visitors to see the work that is being done there."

If we would go to sociology, to the scientific study of human society, and inquire as to the nature of human society and of the relation which the individual sustains to it through its institutions, we would reach the same conclusion relative to the function of the schools in society which we have come to by our practical considerations. I shall merely summarize the conclusions I reached in a recently published article on the "Sociological Warrant for Vocational Education." *American Journal of Sociology*, Sept., 1908). First, human individuals depend quite as much on the social environment in their pursuit of callings and vocations as they do on their physical environment. Agriculture is a social calling because the farmer raises produce for the world markets and often consumes none of his own products. Cut out markets, transportation systems, other special callings who produce for him goods just as he produces for them and he would go back to primitive conditions. So for every other calling. We are dependent on the larger community. Second, this social environment is made up of structures, institutions, organizations, agencies, which are the means we use to get things done for us. One set of institutions serve one purpose, another another, and so on. We worship through the church, vote and legislate through the political organizations, sell and buy goods through the economic, get training and information through the cultural institutions. Without these agencies we would be helpless. The difference between savagery and civilization is measured by the number and adaptability of these institutions. Third, these institutions arose as vocational groups and are of that nature at present. They arose out of a division of labor. As fast as men got new wants in life persons with special skill and knowledge were set aside to supply those wants for the whole social group. At first everyone did everything. Now we have callings, specialties. I do one thing for all while I use a thousand things, each of which is produced by a special group of skilled workers, whether it is shoes or operatic music. We may say that human society is a great organic mass of interdependent vocational groups. Everyone who lives in society has to use these groups, and if he has to get a living he has to get it by working through these vocational lines. To be efficient he must have the peculiar and special skill or knowledge which belongs to some specialized institution. Unskilled laborers, tramps and hoboos are the only ones who are not equipped vocationally, and they are always at a great disadvantage just because of that. Fourth, this tendency of society to differentiate into more and more specialties or vocational lines is increasing. Modern science and invention has made thousands of callings which never before existed. Callings are multiplying and will increase still more rather than diminish. Before the wars with Carthage, Rome had eight labor guilds. Today there are hundreds of labor unions. This is an indication of the tendency in all lines. We may say that the tendency, the overwhelming tendency of modern society is toward vocational specialization.

In consideration of this fundamental constitution of human society it is evident that the individual, to be efficient, must be trained and equipped to meet the requirements imposed upon him by the great social world in which he must live and whose agencies he must use. I am not able to see how anyone can escape this conclusion. The state places on the schools

the responsibility of training individuals for life. Society demands skill, technique, specialization. If the schools do not take up this work other agencies which will carry it on must be established.

The accompanying cartogram of leading industrial groups in the United States indicates how little society has provided as yet for this special training. It also exhibits the astounding necessity:



A PLEA FOR LARGER CITIZENSHIP.

PRIN. L. M. ROCKNE, MOHALL.

Education for citizenship is, perhaps, the most important function of our public schools. The young man or young woman should know what is required in order to be a good citizen.

In days of old Greece, the young man was trained for a place in the service of his country. In old Athens every man was an orator who could plead the cause of truth and right. And as long as Athens had men who devoted their lives to the service of the state, so long was Athens supreme. But when the age of self-seeking politicians came, Athens gradually lost her place as a world-power.

Rome from her seven hills ruled the world, and as long as she had men strong and true, she dictated the policies of the then civilized world. But greed for gold and desire for things material finally weakened the public conscience until it was the boast of an old king that if he had gold enough, he could buy all the senators of Rome. The Roman Empire held the center of the stage of history for more than five hundred years. It crumbled to pieces slowly and surely, because it lacked good citizenship.

And in the words of Patrick Henry, the only lamp for our feet is the lamp of experience—and we can judge the future largely by the past. The perpetuity of this republic can be guaranteed only by future generations maintaining a high standard of citizenship, planned after that of Washington, Lincoln and Roosevelt, and the noble patriots who founded and preserved this great republic.

We need not be alarmists, prophesying dire disaster, because certain men high in public trust are occasionally exposed and found to be untrue to the people. For never before was the public conscience so thoroughly aroused as now. While selfishness is one of the chief characteristics of mankind, it has not yet so permeated our body politic that we need seriously fear the downfall of our institutions. We still have men of broad minds and sympathetic hearts, who will do the things that seem best for the welfare of our country.

But while we may congratulate ourselves for living in a land full of opportunities, there are, nevertheless, great questions which we must sooner or later solve. We need and must have greater personal responsibility for the conduct of our public affairs.

Perhaps, we spend too much time in thinking of the material advancement of the country, but one thing is certain—there are some phases of this question which demand the attention of every teacher in this land. There are a great many avenues for the exercise of intelligent citizenship, and the teachers must lead the way by arousing public interest in every great problem of vital importance to this and future generations.

A question which today should concern us more than any other is the conservation of our national resources. And this is closely allied to good citizenship. A nation without resources is helpless and sooner or later will be relegated to the scrap pile of history. The boys and girls must receive instruction and be taught the great importance of preserving the untold

wealth of our forests. They must also be taught the value of trees to an agricultural state.

Prominent authorities say that within twenty-five or thirty years, at the present rate of consumption and destruction, we shall have a lumber famine. This is no idle dream but based upon cruel facts. The governor of our state has made a timely appeal for more trees in North Dakota. There is no doubt but that forest growth in our state would not only change the climate, the rainfall, and the productiveness of our soil, but it would also help to solve our lumber shortage which is coming fast.

During the past months the prominent magazines have had many articles upon this subject of our natural resources. To show concretely what we are coming to, let us quote a few figures. Lumber has increased from \$22 in 1898 to \$45 in 1908; oak from \$50 to \$75 in ten years.

This increase of price has affected everything. Household goods have kept pace with price of other commodities. A refrigerator which cost you \$9 in 1898 now costs you \$12.50; a Morris chair that costs today \$10.00, will cost \$12 in 1910, \$14.40 in 1911, and in 1940 it may be worth its weight in gold. And this will hold true of all household articles from a rolling pin to a grand piano. Is it any wonder that increase in the price of lumber continues when our forests are being cleared away at the rate of forty acres a day—the woods are swept away three times as fast as they grow.

But the destruction of our forests means more than wood material, it means the destruction of our farms, without which no nation can long exist. Here is what one of the authorities of the Bureau of Soils says: "The waterways of the United States annually sweep from land to sea a billion tons of earth. Of this, ninety per cent is chiefly soil matter. In weight it is comparable with the total tonnage of all our railroads and river and lake vessels. Its bulk is one-fifth of a cubic mile; it equals a block one mile square over a thousand feet high. Applied as a fertilizer, it would cover to a depth of a quarter of an inch, an area of about two hundred and forty thousand square miles, or the surface of the Atlantic states from Maine to South Carolina inclusive, with New York, Pennsylvania, West Virginia and one-third of Georgia thrown in. Its loss is the heaviest impost borne by the American farmer. This soil waste is sapping a resource richer than all other combined, save one, namely, our inland waters. These, immeasurably our richest resources, are in a great measure perverted into a curse. And both soil wash and river ravage are largely to be traced to the absence of the forests from the slopes on which the rivers rise."

Thus we see that the destruction of our forests will bring dire results which can only be valued in terms of millions of dollars. Is it not time for us to act? The nations of Europe have for centuries been taking care of their forests. Every country which has failed to take proper care, has had a desert country. China failed to save her forests, and has barren hillsides which are veritable deserts. Japan, on the other hand, began a thousand years ago to conserve her forests.

The teachers can and must start a crusade upon congress and the legislatures to bring about remedial legislation in the way of appropriations to

create forest reserves and start the work of reforestation. We must have national and state control of private forests. Let us prevail upon congress to take up the fight against the vested interests and protect the forests so that this nation can continue its march of progress.

And the members of this association can do much to arouse, thoroughly, public opinion in the various communities from which they come. This problem is of national importance and must be solved now. Let us go out armed to fight the battle of good citizenship by helping to solve the problem of our natural resources. Enlightened self interest prompts this move, and we must act to save ourselves. Let us as teachers labor on to promote that kind of citizenship which will prevent any repetition of this tragedy of the trees. Save the trees and you will save the birds. And by doing this you will save the boys and girls, because you will have instilled in their hearts the greatest lesson of citizenship, namely, service. You will inspire in the coming generation a patriotism and service of native land which will make it impossible for this country to repeat the history of Greece and Rome. You will set in motion one of the forces which makes for larger and more intelligent citizenship.

SOME COMMENTS UPON THE ADJUSTMENT OF SECONDARY SCHOOL SCIENCE WITH REFERENCE TO THE NEEDS OF THE TIMES.

BY G. W. STEWART, PROFESSOR OF PHYSICS, STATE UNIVERSITY.

The title of this address has been suggested, as you doubtless perceive, by the preliminary report of the committee of seven. The contents, if it is to be worthy of your attention, must be of necessity, very limited in scope. I have chosen the adjustment of secondary school science because that seems to be one of the most important problems considered by the section which I represent, and I have further confined myself to a few comments, preferring to sacrifice comprehensiveness for clearness. It is therefore essential that the address be received as a discussion which makes no pretense of completeness.

Within the past few years there has been much just complaint of our secondary school science courses to the effect that the study is made too technical. If these various courses were summoned before us for critical inspection, perhaps none would receive greater condemnation in this respect than that of physics.

I shall select one technical feature of physics teaching as a method of presenting the criticism concretely. This feature is the use of mathematical formulae in the solution of problems of various shades of difficulty and practicability.

There are three good reasons for teaching the student the use of the formulae, viz., that he may be prepared to solve such problems in life, that he may obtain a clearer conception of the phenomena, and that he may profit by the excellent mental training thus afforded. Let us consider first the acquired ability to solve mathematical problems in physics, i. e., to

apply mathematics to a set of conditions with the object of obtaining an exact answer of value. The student, let us say, has studied accelerated motion and has been drilled in solving equations concerning a body having uniformly accelerated motion. Now, where can he apply this information at the close of his high school career?

Mayhap he is a traveler who finds himself upon a historic bridge or famous tower, desirous of ascertaining the exact height of the structure. He has been taught the equation which will give him the desired height if he can but measure the time required for a stone to drop from the top to the bottom. But, alas, he may not have the stone, or, what is more likely, he may not possess a stop-watch. As a matter of fact, it is more probable that he is the possessor of a guide book containing the desired information than that he is equipped with the apparatus necessary for this test. But more than this, if he had any motive better than curiosity, he would doubtless seek a more accurate method of measurement. This illustration does not exaggerate the actual uselessness of the formulae to the student of high school physics, if usefulness be determined by his ability to apply them in life. Of course I am not now referring to physics taught to prospective engineers, although even the engineer rarely it ever makes such a direct application of the formulae of accelerated motion. These equations, however, become woven into the very texture of his technical learning and are thus of indispensable value to him. But if I ask the high school teacher to point to conditions met by the ordinary high school graduate which demand the mathematical solution of problems similar to those taught in the physics course while he can probably point to such, he can do so only with considerable difficulty.

The teacher, then, who trains the students to solve such problems with the hope that this acquired ability will be of direct service in after life, is almost certainly doomed to disappointment. The real service of the mathematical feature of high school physics is that, if properly used, it gives the students clearer conceptions of the phenomena. The adjustment which is needed will be obtained when the teachers of physics actually realize that the problems are only a means to an end, and not the end itself. When the teacher is in the class-room there is a strong tendency for him to magnify greatly the importance of the problems, although in his own study he may really have the proper conception of their purpose. If this tendency cannot be overcome, then the mathematical feature should be eliminated from the subject; though if this day ever comes, it will be a sorry comment upon the ability of teachers. When blood poisoning sets in, amputation is not favored unless the affected part refuses to yield to treatment. You may think that this case of poisoning has been treated for a long while without much success, but I believe the latest bulletins announce that the progress of the disease is checked, and that, with proper care, recovery is certain.

The difficulty is not so much in the general methods adopted in teaching physics, as in the attitude of the teacher. Some claim that mathematics is the backbone of physics. If by mathematics they mean formulae and the manipulation of mathematical symbols, I have no hesitancy in denying

their claim. But, on the other hand, I wish to be distinctly understood to say that it is impossible to teach physics without teaching laws which operate in a definite manner. Physics can be studied appreciatively without the use of a mathematical symbol, but the appreciation will never, never come without the application of clear and exact thinking. If this thinking is expressed in mathematical symbols, we have the formulae. Consequently truth in physics should be expressed in mathematical symbols only when the expression in this language brings added clearness. Mathematics and physics are not one and inseparable. All honor to mathematics. It is one of the greatest weapons of attack possessed by the physicist; but we must remember that the phenomena in nature do not exist because of any mathematical processes which we use. They are really independent of such processes.

Physics is by no means unique in the possession of the fault of too much technical teaching. In all the sciences we are constantly thrusting technicalities upon students who are anxious to learn something of the great heart of nature. The musical artist must be a master of technique; but the listener who is not a performer is interested first of all in the message which the music will bring. Are we not, in high school science, attempting to make artists by giving the first year's work in technique? The fault lies not in the sciences but in the teachers themselves. A teacher of meager training will really regard the year's work as one of technique, although he may not realize it. To have the proper conception of the science one is attempting to teach, and to appreciate both the use and the abuse of technique, means that the teacher must be almost a master of the subject rather than a beginner. I plead, therefore, for more extensive training in subject matter for our high school science teachers.

Again, our science teaching is criticized because the training is not sufficiently practical. The claim is made that the students do not know how to use the information they have obtained in the class room. On account of the very nature of teaching, there is always a tendency on the part of the instructor to narrow his horizon until it includes only the exact information which he is attempting to impart, instead of viewing this information in perspective, or, as related to the great hosts of facts in the world about him. There is joy in scholarship for its own sake, and the teacher finds a delight in giving instruction whether it is related to the world about him or not. But is it possible to teach a year's work in science so that the information will be useful afterward?

Certainly, but a year's work in any science will not enable one to explain even the most common things about him. In fact, many of the occurrences in every day life will remain unexplained even by scholars, for many years to come. The explanations may seem an easy matter to the unlearned, but not so to the student. It is therefore well to sound the warning that some of our critics are absolutely unjust in expecting a one year's high school course in science to prepare a student fully for everyday problems in that subject. But the training of the student should be practical. Now, where is the fault in the teaching? One teacher says he has scarcely time to teach the main principles of the year's work in

science; how can he devote time to the consideration of practical applications when there are enough of these to occupy an indefinite time? Which shall be taught, principles or applications, or how much shall one be sacrificed for the other?

Obviously it is impossible to answer these questions definitely in a brief address, but it is possible to point the way in which adjustment must be made if our work fulfills the needs of the times. Frankly, the remedy to be applied is a pair of spectacles to improve the vision of the teacher. A teacher with the proper vision could not possibly teach basis principles without relating them to the world about him. He sees everywhere the operation of the very laws he is teaching. I am aware that a teacher with meager training cannot have this vision, and consequently his students will suffer in the point of applying what they have learned. A teacher with the proper vision is continually exhibiting his attitude of mind to the class, and the latter acquire the habit of continually noting applications of principles taught, or, rather, of interpreting nature. It is this habit which will make their science work of the greatest future use. This, then, is the only practicable method of teaching the applications of the science in the one year's work; have the basic principles taught by one who has studied not only the principles, but also the applications of the principles in the world about him. Such a person must be prepared by an extended training in the work he is teaching. Some critics, in their zeal to make science more practical and less technical, have almost advocated changing the science courses to moving picture shows. But, in so doing, they fail to realize that no mere gazer ever obtained an appreciation of nature, for in the appreciation of natural law the secrets are open only to the student.

To summarize: Two of the most important faults of our secondary school science teaching are too much instruction in technicalities, and too few practical applications. My plea is that we need the principles of the sciences taught in such a manner that the student will become not a small edition of a scientific dictionary, able only to define, but rather an appreciative and intelligent observer of the many marvels about him, and that to this end the student must have a teacher of advanced training.

THE CULTURE VALUE OF INDUSTRIAL TRAINING.

PRESIDENT W. M. KERN, STATE INDUSTRIAL SCHOOL, ELLENDALE.

The concept of culture is a variable. To different people, ancient and modern, learned and ignorant, the idea conveyed by the term culture differs vastly. In the light of history the characteristics of men of eminent culture express the ideals of their respective ages. To properly appreciate the significance of this term at any particular time we need to know the ideals that humanity cherished. A brief consideration of a few of the eminent characters, men who have typified the culture of their respective periods, will serve to indicate the meaning of the term in the past and to emphasize, at least by contrast, the modern point of view.

Pericles was the one Olympian at the most brilliant period of Athenian history, the genius who towered above other mortals as Olympus, the abode of the gods, towered in majesty over the Thessalian plain. Highly educated, the pupil and friend of the famous philosopher Anaxagoras; an orator, distinguished for both eloquence and argument; a statesman of sincere convictions and ardent patriotism; jurist and lawgiver, eminent in civic affairs; a musician of sufficient skill and appreciation to be chosen judge in the great panathenaic tournament; a patron of literature, art, philosophy; the creator of Athens beautiful, its temples, theaters, shrines, gymnasia, fountains and baths which, even in ruins, are the admiration of mankind, through a public career extending over forty years he was the foremost man of his time. An individual of lofty imagination, of quiet dignity of manners, of unruffled serenity amid the turbulent scenes of political strife, he was the highest type of the cultivated man of the period. Yet Pericles was not only an embezzler of public funds, but a man who held in light esteem the most sacred social institution of our modern life, marriage and the home. With all his virtues, and they were many, would he take rank as a person of culture at the dawn of this new century?

Maecenas was the favorite agent, the chief counsellor and the trusted friend of the Emperor Augustus, whose reign is a synonym for the "golden age" of Roman literature. He knew and appreciated the best in literature and art. He was the most enlightened patron of men of letters—Ovid, Horace, Virgil—in a period destined to influence the history of literature for all time. Yet Maecenas was an effeminate devotee to pleasure, indolent in private life, a voluptuary, an epicurean, a Sybarite. The leisurely, cultivated man of his time, does he measure up to the full stature of the cultivated man of modern time?

Lorenzi de Medici, tyrant of Florence, was so pre-eminently the cultivated man of the renaissance as to have received the title, Lorenzi the Magnificent. His name is inextricably associated with the scholarship and fine arts of his native city. He was not only the patron of poets, artists and scientists, but a man who "led his age in every branch of learning;" student of the classics; master of the vernacular; writer of sonnets and lyrics; author of devotional lauds and mystery plays. Under his sympathy and inspiration Italian literature flourished. The intimate friend of Fra Lippo Lippi and Michael Angelo, a prince whose palace was a salon of wit and learning. Yet Lorenzi de Medici was a voluptuary who led a life of compromise, diplomacy and hypocrisy, a genius who had the ability to clothe obscenity in beauty, and an assassin. The cultivated man of the Florence of the Renaissance, what position would he hold in our modern conception of what the term signifies?

Desiderius Erasmus was incomparably the first scholar and most highly cultivated man of the period of the Reformation. The greatest literature of Greece and Rome had become possible for the western world through printing. Art and science were reviving. He was learned in all these. At Oxford, at Cambridge, at the University of Paris, he was a familiar figure. His Latin was as polished as Cicero's. Clever, tolerant, gifted, of untiring industry, it was he, so said the monks, who "laid the egg of

the reformation." Believing with Luther, realizing that there was no hope except in revolution, his proper place was at the side of the Wittenberg monk. A man of less brilliant parts, but endowed with moral courage would not have hesitated. To Erasmus truth was not the first consideration. At a critical hour in the history of intellectual freedom we find him writing to a friend, "As for me, I have no inclination to risk my life for the truth" (Letter to Archbishop Warham), and again, "Peace on any terms is better than the justest war." Broadly learned, polished, but of feeble moral fibre, does such a character embrace those qualities that we deem essential elements in the man of culture in the dawning days of the new century? Pericles, Maecenas, Lorenzi de Medici, Erasmus—each of these characters appeals to us at once as typical of the culture of their respective time. The life of each serves, in the main, to define and illustrate the sense that has attached to this term in the past. Whether either of them could qualify as the cultivated man of today, and in what sense either of them would fall short of the full measure of culture must depend upon our conception of the term. To different minds it suggests different things. To one it is a synonym for mere elegance or refinement in dress and manners, and broad phylacteries, aigrette, bracelet and an odor of heliotrope are evidences of the cultured life. To them, the leader of fashion, the ultra suave, the pink of social perfection make up the full meaning of the term. To another, it is dilettanteism, dabbling in the things of the spirit for amusement. It was against this interpretation of the term that Walt Whitman fumed and volleyed. Again, it is proficiency in the dead languages, or a knowledge of and love for the best there is in literature. And, again, it is appreciation of art and music, familiarity with the work of the masters, combined with more or less of skill. Any one of these views is necessarily limited. Here is an individual who knows and prizes the world's great literature and its classic music, who comprehends the scientific thought of his day, whose name is a synonym for good breeding, but who is not self-supporting—who is a dependent character. Is he a man of culture? Here is another of similar attainments who is known in the market place as a cheat. Is he a man of culture? Here is another of equal attainments whose moral life is honeycombed with rottenness. Is he a man of culture? How shall we classify these characters? In other words, is the dependent character, the dishonest or the immoral man ever a person of culture? Are ordinary everyday Anglo-Saxon self-dependence, honesty, decency and moral integrity the fundamentals of the cultivated life or may an individual be cultivated in whose life and character these qualities are wanting? How do you find yourself voting on this proposition? The answer to this query will serve to define the culture value that attaches to industrial training.

There are two meanings that properly attach to the term industry and in any fair discussion of the term each should receive consideration:

(1) John Addington Symonds defines culture as "the raising of faculties—physical, mental, emotional, moral—to their highest excellence by training," and Hamilton Wright Mabie speaks of it as "the art of living." Then the individual who has lived completely, in whom every power of

body, heart and mind has been trained and developed is cultivated and anything short of a full and symmetrical development means, to just that degree, a lack of culture. The latter gives us the essentially sane view from the standpoint of evolution. Each individual is born endowed with certain innate capacities. Throughout the subtle mystery of growth these powers unfold and develop. But growth means the expenditure of *energy, work, industry*, and is inconceivable without it. Through the interaction of immature capacities upon the environment the spirit unfolds and there is liberation of self. Gradually the mind comes in possession of its powers. Two evidences mark this unfolding: the tangible evidences, the products; and the intangible, the character within. The latter is judged by the former. What you think of a particular person depends upon what he gives you to think about. Power within means an achievement without. "What an individual does is an authentic revelation of what he is." Work reveals the character of the worker. "The real profit," says Mr. Mabie, "of a day's work in the world can never be estimated in terms of money, it can only be estimated in terms of character." Thus the finest products of industry are not the joint, the steam-engine or the manuscript. The mechanic's work, the physician's work, the musician's work is a revelation of the mechanic, the physician and the musician respectively. There are as many graduations in the quality of work as there are gradations in the character of the worker—just so many and no more. Goethe speaks of his own work as one great confession. "The tree is known by its fruit." All work is thus an expression of character, and any type of training that wisely directs the expenditure of energy and enables the individual to give expression to the highest and best of which he is capable, serves, to just that extent, to develop him into a cultivated man. "Culture," says Mr. Symonds, "enables people to find out what they are made for, what they can best do, what their deepest self requires for its accomplishment."

(2) There is a narrow sense in which the term industry is used, its limited meaning, "exertion for the creation of value." In what sense is *this* kind of labor valuable for training in culture? President Eliot, who has been pronounced "the leading educator" of his time, in treating of the subject of culture has pointed out some of its necessary elements and their place in a scale of value. In general terms he characterizes the cultured man as the "person of quick perceptions, broad sympathies, wide affinities; responsive but independent; self-reliant but deferential; loving truth and candor; courageous; not finished but perfecting;" traits "not attained in solitude but in society." The "bookworm has never been the type of the cultivated man." In addition, in a detailed statement of the elements involved in the idea of culture he finds, first, that the "moral sense of the modern world" makes *character* an element—a "more important element" than in former times. The term character is used here in its popular sense—quality, excellence, virtue. There is a certain moral rectitude and integrity which mark the man of character. From the earliest times industry, habitual diligence in which the physical and mental powers have been disciplined, has held a high place in the formation of char-

acter. Even industrialism in the narrow sense—the creation and exchange of values—trade, commerce, applied machinery—has exercised a powerful influence on the development of morals. Our moral sentiment regarding usury developed out of the exigencies of trade. Even so simple a thing as lighting the streets has diminished crime—in Addison's time people compelled to go upon the streets at night went in armed bands. Improved sanitary conditions have conspired to lengthen the span of human life within the last century. Religious toleration has been promoted through commerce. Lecky, in his "History of European Morals," says: "There are three forms of veracity, industrial, political and philosophical. By the first I understand that accuracy of statement or fidelity to engagement which is commonly meant when we speak of a truthful man. This form of veracity is usually the special virtue of an industrial nation." It constitutes "the chief moral superiority of nations pervaded by a strong industrial spirit over nations among whom this spirit is wanting." The development of commerce has probably done more than any other one agency to prevent wars. Railways and steamships have made famine practically impossible, and served to promote a spirit of universal brotherhood. The Hanseatic League, a merchant alliance, was the first organization to successfully withstand the baron robbers of Mediaeval times, bringing security to life and property. England is in South Africa for trade, and but few people doubt the moral uplift that will result from the Anglo-Saxon invasion. The rule of England in India was begun as a commercial enterprise, but it is said to have done more for India than Buddhism and Brahmanism combined. Asia is a non-industrial country. Its morality is of the sentimental, contemplative type intended to produce "holy men, seers and mystics," but the masses of the people remain in poverty and degradation. In England, a "nation of shop keepers," the laborer has more comforts than a king enjoyed in the thirteenth century, while in China he "crawls into a hole and sleeps on a board." And what is true in the large holds true for the individual. The prime quality which distinguishes civilized man from savage man in the nineteenth century is "freedom from violence of character." This blind impulsiveness Herbert Spencer characterizes as "extreme emotional variability" and tells us it is a fundamental trait among semi-civilized and inferior races. The history of the dark ages, from the fall of the Roman Empire, through the periods of barbarism, feudalism and militarism emphasizes this contention. This violent impulsiveness still manifests itself at times during periods of uninterrupted idleness. That regular and methodical labor work has been a prime element in "taming" the savage out of man can hardly be doubted.

Moreover, incapacity for regular methodical work has manifested itself in the criminal. Carrol D. Wright found that of 4,340 convicts at one time in Massachusetts 68 per cent were returned as having no occupation. His statistics show that, of almost 7,000 cases examined, 74 per cent were said to have no trade. Is it at all remarkable that mankind has instinctively turned to industrial education for training the savage out of man? Benjamin Franklin tells us that, "among workmen good apprentices make good citizens." Booker Washington, in a volume entitled

"Working With the Hands," says, "If anyone will go into a community north or south and ask to have pointed out to him the man of the negro race belonging to the old generation who stands for the best things in the life of the colored community, in six cases out of ten there will be pointed out to him a man who has learned a trade."

And what is the relation between this type of industry and culture? President Eliot tells us that character is an element in culture—a "more important element" than heretofore. Symonds tells us that "the nearer a man comes to possessing it (culture) the more importance will he attach to character" among other qualities. Emerson tells us that "the foundation of culture as of character is at last the moral sentiment." In the industrial world the man of character is the "man of his word." This moral quality is the very corner stone of business ethics. Honesty, truthfulness, sobriety, fidelity to engagement and a certain self-dependence are necessary to the highest sort of success in the world of business and these qualities are developed and perfected through the relations of mankind in the creation and exchange of values. Much might also be said about the training of the perceptive powers; the cultivation of sympathy; the proper appreciation of the problems of labor; the intelligent conception of God's universe through the study of applied science. If regular, systematic and intelligent training in any useful vocation tends to develop the cardinal virtues, then industrial training, whether in the arts or the professions, must ever hold a high place in developing the cultivated men. J. G. Holland in "Bitter Sweet," expresses the same sentiment in the lines:

"I see a youth whom God has crowned with power
And cursed with poverty. With bravest heart
He struggles with his lot, through toilsome years,
Kept to his task by daily want of bread,
And kept to virtue by his daily task,
Till, gaining manhood in the manly strife,
The fire that fills him smitten from a flint,
The strength that arms him wrested from a fiend,
He stands, at last, a master of himself,
And, in that grace, a master of mankind."

THE NEED OF THE PUPILS LEAVING SCHOOL AT DIFFERENT AGES.

SUPT. R. M. BLACK, RICHLAND COUNTY.

Our public school system is under review indicted on the charge of insufficiency, if not of inefficiency in meeting the demands of a practical twentieth century education. Do present plans meet the requirements of the situation? Too many pupils leave school before completing any course of study or any definite work. These pupils have educational needs, but so thoroughly is our educational system in the process of evolution that the final word upon these needs will be spoken only in the future, and this discussion will be simply a study of the problem as we see it today.

Our present plans are not all bad. Too many witnesses in the persons of strong men and women whose training was begun in the present regime, attest the fact that the needs of those who remained in school were fairly well met.

But while a few have derived great benefit from our schools what about the great majority of those who for some reason have fallen by the way? We are not content with a system which simply aids and abets nature in verifying the law of the survival of the fittest, but are trying to help each and all to become fit to survive.

A brief survey of our educational system will show us that our plans consciously or otherwise take the pupil at the threshold of his school life, into a course of training which implies and expects eight years of grade work, four years of high school, and four years of college before it sets the approving stamp of scholarship upon his attainments. There are but two getting off places in these sixteen years, at the close of the grammar grades and at the completion of the high school course. Getting off anywhere else means falling off the educational train.

Perhaps this is more nearly true of former times. We do have studies in the high school which are not college preparatory, but we do find long lists of high schools accredited to some college or university. In our own state, the State University very largely fixes the standard for high and graded schools. We have had a system built from the top downward, a survival of the colonial idea that the purpose of the school was to train for the ministry rather than beginning at the bottom where the people live and building upward. It was more a question of what a man knew than of what he could do. The system was top-heavy and built up an aristocracy of education, a group of people who knew things and whom the business world revered for their much learning but cordially pitied for their ignorance of the real activities of life. Not long ago one could say with impunity that a college graduate was the greenest thing under the heavens. This has changed, for a new factor, the agricultural college, fostered by the United States government, shattered the old ideals and demonstrated the fact that an educated man could also be a man of affairs and even a man of toil.

Only a small number of people get to college. I have statistics from twenty-five of the first and second class high school of North Dakota. These are representative schools in different parts of the state. The superintendents tell me that 945 pupils have graduated from these schools in the last five years and that 493 of these pupils went to college or to some higher institution of learning. Fifty-two per cent of high school graduates to continue their education is a splendid showing. Of a class of twenty-two from the Wahpeton school, five went to college, one to a law school, two to a normal, two to a business college and one graduated in music from a first class conservatory. The other eleven or just fifty per cent of the class had no higher training. Of another class of ten from the same school two went to college, one to the normal school, one spent a year in a law school and one studied music, and the other five or fifty per cent, have attended no school above the high school.

While this data may furnish us an estimate for our own state, it would not be safe to accept such figures for the country at large. Fifty per cent is probably far too large an estimate. Even if it were nearly that proportion of high school graduates who go to college only a small percentage of the young people even go to high school, to say nothing of *completing* the high school course. Prof. Thorndike of Columbia, has given this subject thorough study and finds that less than one in ten graduate from the high school.

When we turn to the rural and graded school a far different situation is found. From facts gathered from twenty-four counties in North Dakota I find that an average of about fifteen per cent of the pupils in these counties complete the eighth grade, the figures varying from less than one per cent in one of the western counties to sixty per cent in one of the northern counties.

In these same counties about six per cent of the pupils take a high school course. This means that about 85 per cent of the pupils of the state do not complete the eighth grade and that about ninety-four per cent have little or no training above the first years of the high school.

These losses by elimination of pupils from school occur in almost all parts of the course. Prof. Thorndike says that about one-fourth of the children remain in school "only long enough to learn to read simple English, write such words as they commonly use, and perform the four operations for integers without serious errors. A fifth of the children entering city school stay only to the fifth grade." The statistics are for the white population only.

Of twenty-six city schools in our state eleven report the greatest losses as occurring in the grades from the sixth to the eighth, seven from the seventh to the eighth grade, and seven schools have greatest losses in the high school years.

Of the outside forces which impel the child to leave school the most potent are: Necessity to work for support either for himself or the family; scarcity of efficient farm help; lack of interest on the part of parents; lack of opportunity; lack of energy, or capacity, and two reasons which the school should not be slow to appreciate and utilize in securing the pupils attendance, viz: The natural desire to be able to earn something, and the more powerful desire to do something.

There are also inside forces for which the school is responsible. Short terms of school make the work extend over so many years that the pupil gets to feeling too old for his grade. An inflexible course keeps some pupils back while their classmates are promoted and they become discouraged. Lack of men teachers causes loss of both country and high school boys. Harsh and unsympathetic teachers drive some pupils from school. The work of the seventh and eighth grades is very largely a repetition of the work in the grade just below and the pupil loses interest. The studies of the ninth grade, or first year high school, are new and strange and many pupils find it easier to quit school than to master subjects so foreign to their interests.

I asked a few representative men if the school is at fault that these heavy losses occur. The replies all were in the affirmative on the ground

that the school should bring in and interest the pupil instead of letting him drop out. "In theory all should be brought in, led or driven." One superintendent says: "But after all, the people are not fools, they are in the main fairly good judges of their own interests, and are generally deeply interested in their children's welfare. I believe that much of the absence and early quitting of school are due to the discovery that after all the school trained boys and girls do not "do as much better" in the world as one might expect, and the resulting conviction that they are not losing so much by staying out as the teachers want them to think."

As already implied lack of vocational studies or at least lack of emphasis upon those which directly help in earning a livelihood allows many to drop out of school.

Concrete examples will illustrate some of these points. I know three boys none of whom have completed the eighth grade, although living within four blocks of one of the best schools in the state. All three boys are possessed of average or better than average intelligence and all three are now working in stores and making a success of their work, but all should be in about the junior class of the high school. One left school because he fell behind his class and was glad to hide his discouragement in employment that gave him an opportunity to prove his worth. Another one left school with an excellent record in school work but with the consent of his father because the boy had taken all the school work which the boy and his father considered necessary in making a living. The third boy left school for an unusual reason. At the time of the examination given by the high school board he was told by his teacher that there was no use in his trying the examination. He couldn't pass anyway. The boy took the examination but the results were returned sometime after school had opened in the fall and the boy under the influence of the adverse prophecy of the teacher had not entered the higher grade at the opening of school. The returns showed that he had passed with the second highest grade in his class but no amount of persuasion could induce him to return to school as the connection had been broken.

It would be unfair to the schools to leave the impression that they were doing nothing whatever to meet the needs of those who quit school early in the course. Even the old courses of the high schools were made up of useful subjects and the great majority of our high schools offer a good list of elective studies. Twenty-five high schools report electives ranging in number from four to twenty-five in the three or four years' course. Seven of these schools are giving no electives which they would class as strictly vocational, about one-third of those offered by the other schools are by the superintendents classified as vocational studies. In reply to the question, "Who elects, teacher or pupil, or pupil with parents' consent?" the answers show that in eighteen schools the pupils take the initiative in the choice of subjects, but in all but one case the choice is approved by the parent or teacher. Two superintendents quite emphatically hold that the teacher as the expert who knows, should be the one to make the choice, to be confirmed by the pupil or the parent.

This same question was put to several business men. Two were thoroughly in favor of leaving the choice to the pupil; three wanted to have the combined judgment of teacher pupil and parent; one considered the teacher as the proper one to make the choice, and one wanted the teacher's choice approved by the county superintendent. In city schools the final approval should be made by the professional expert, the city superintendent.

The rural school and the grades with but one teacher can of necessity offer very few if any, elective studies and yet the single room rural school has the best opportunity to emancipate itself from ironclad courses if permitted to do so by its overlords, the superintendents. No one would advocate a return to the old chaotic condition when every school was a law unto itself, but the common conception of the rural school is that it exists to serve the people of the immediate community. The fundamentals are so essential that the work of these schools if well done has been accepted as fairly well meeting the needs of all pupils who would attend consistently. But as great losses occur here, so here is found a part of our problem. It will probably prove to be a problem of condensation of material to make room for added work rather than an omission of entire subjects. I asked twenty-eight county superintendents the question, "Can we omit any of the common branches from our course of study?" The unanimous answer was "No." Four qualified their answer by saying that perhaps formal grammar could be omitted leaving the language work to take its place. There was quite a unanimity in believing that the subject matter of several studies could be so pruned as to save the pupils time for other work. Eighteen of these county superintendents felt that the courses of study were too largely preparatory for higher schools. In reply to the question, "Do the needs of pupils differ when some drop out and others remain to complete the course?" seventeen thought the needs differ, and ten answered this question in the negative.

In reply to further questions ten county superintendents thought it advisable to outline our courses with regard to the needs of those who may not complete the course and twenty-one thought we should take all pupils as far on a general course as we can.

Several representative business men were asked the question in this form: "Should we arrange the course of study to meet the needs of those who may quit school early, or give the same studies to all pupils regardless of their future plans." A lawyer-farmer says: "The course should be arranged as if every student was expected to complete the full common and high school course."

A merchant says the course should be so arranged that studies which do not appeal to a pupil can be changed for others. A farmer and real estate dealer says, "The course of study should be arranged to suit those who drop out of school early so as to get the most benefit possible. The others will take care of themselves." Another farmer, a former trustee of one of our Normal schools, says, "The country schools cannot follow the course of study as it is now arranged, therefore a special course for them only should be offered." A druggist and school clerk says, give the

same studies to all pupils, we cannot successfully give two courses in a school with one teacher. Another young business man says the "Course should be made for all and those who are inclined to quit should be shown the folly of so doing." Several teachers of grammar grades agree that one good practical course in the grades is the wisest plan under present circumstances. Of twenty-six superintendents of state high schools seventeen think that all grammar grade pupils should take the same course, while nine with equal emphasis say that all grade pupils should not be expected to pursue the same course.

A successful editor says "No," for the reason that many of the studies taken up during the common school course are preliminary to higher studies and when not followed to the end of the course are in a large measure a loss of time and effort to the pupil."

In regard to the high school course there is much greater diversity of opinion. One young business man, himself a graduate of Iowa State University, says all pupils should be given the course which will take them to college if time permits, and the pupil will get farther up the road towards a complete education if the goal is well on ahead. He considers himself so much better equipped for a business which is not supposed to require a college education that the time and money spent in college was his most profitable investment.

From the replies of the twenty-six city superintendents it is found that nine schools make a distinction between pupils who expect to go to college and those who do not, and seventeen schools make no such discrimination.

I asked four educators if we should have two courses in the high school, one college preparatory and the other vocational. One thought not, two were in favor of offering a vocational course and the other preferred an arrangement so flexible as to offer courses to meet all possible requirements. To the question, "Should we offer vocational courses to all and ask the college to take its quota of pupils from those trained in such courses?" the response was quite strongly in favor of building for the high school first and letting the college accept the high school's product.

From these opinions we may obtain help in appreciating some of the needs of pupils who leave school before completing the course.

First and especially important is the need that these pupils should be brought into school. No course of study, no subject, however valuable, no school however well supplied with equipment and teachers can be of benefit to a child until that child is brought within the influence of the school. But with equal urgency comes the need, which presents a more difficult problem, that of *keeping* the child in school. These great losses must so far as possible be eliminated, and until the percentage of pupils dropping out of school is very materially reduced the school system must stand impeached before a people so professedly devoted to education.

Until we can find some solution of this problem it is wise to attempt the next best thing and give each pupil the maximum of educational training in the moiety of time in which our influence can reach him. Perhaps the point of approach has not been well chosen. The physical activities

of the child have too largely been repressed instead of utilized. We forget that he is a young animal and that if he is natural that life, great pulsating, throbbing life is surging through him. This life needs expression, not repression. To meet this need and maintain harmony with other needs the various forms of manual training and industrial work have been advocated and successfully employed in many schools.

Upon the question, "Would a curriculum of vocational studies in the high school keep more pupils in the grade school?" three county superintendents preferred not to commit themselves, twenty-two thought such a curriculum would keep a larger number of pupils in the grades, and three thought it would not. Upon the same question in regard to keeping more in the high school, the vote stood just the same, twenty-two affirmative, two negative.

In reply to the question as to what studies were most needed by pupils who fail to complete a course, two city superintendents said such pupils needed something to do, and eighteen others named vocational subjects as the special need. The other six placed special emphasis upon the common branches. Several of the grade teachers strongly commended vocational work if an adjustment could be made with studies which are so essential as the majority of the common branches. One of our business men, in answer to this question gave as fundamental essentials, "Arithmetic, penmanship, a fair knowledge of the English language, a general knowledge of business methods."

To recapitulate, only a small percentage of pupils complete the eighth grade, a much smaller percentage go to high school and a few in comparison with the whole number go to college. The school is responsible for some of the losses from leaving before the course is completed. An adequate and acceptable system of education must provide for the needs of these pupils, who drop out. The course of study so far as the common branches are concerned is considered a fairly practical one, but much time could be gained by eliminating material which has no direct connection with actual business or social life, and the time thus saved could be devoted to subjects which could be directly helpful in fitting the pupil for life. Textbooks are made to sell and usually contain much material which could profitably be omitted.

In the high school elective studies are offered which allow the pupil some choice in the course of study he is to pursue. Some of these electives are vocational subjects.

Vocation subjects are suggested both to permit the outward expression of the child's activity and to aid him directly in securing equipment for his life's work. The school should cease attempting to "machine" its pupils, and should recognize individual aptitude the need of training to do something.

The system should be built from the bottom upward and the higher schools and institutions should meet the schools below them instead of handing down a rigid course preparatory to their own set courses.

Rigid promotion systems should be abolished and both teachers and superintendents should consider the individual rather than the class and be

ready to make promotions fearlessly. Many an overgrown boy has been driven from school in the fifth or sixth grades because he could not fulfil all the requirements of a rigid promotion test. If he can get the most good in the eighth grade or high school, put him in that place. It may break the machine, but so much the better. We deal in human welfare, not machines.

The individual pupil needs that which will help him to find his place in the world's activities most readily and which will enable him with the given preparation to attain the maximum of efficiency for himself and society. To these I wish to add two considerations not before mentioned in this discussion. One is the need of great teachers, great in heart, power in culture and in vision. Without these any educational system will fall short. With these even our old inflexible plans were successful in accomplishing their main purposes. Until we can get teachers who are willing to make the preparation we can make no progress, but instead are likely to bring our most cherished plans into disrepute and to failure.

I sincerely hope no steps will be taken toward making vocational work compulsory until we as teachers rise to the exigencies of the situation and are prepared for glorious victory.

It is the personal touch that lifts to high ideals. The true shepherd leads his flock instead of driving them.

The other point is this. The school has too long been actuated by the ideas that it should train the pupil for life. Rather let the purpose be to train him in life and let his school life be but a splendid part of the larger life he is leading. To re-enforce this idea the school should present ideal surroundings, should be in every sense his school home. Ideals built up in such a way are permanent. It probably is a long ways into the future to hope for beautiful school houses and yards located with all the surrounding of a beautiful school home to impress ideals upon the rural school pupils, but circumstances naturally accompanying such a situation would bring to pass some conditions exceedingly helpful in answering these questions, which engage us now.

HIGH SCHOOL CONSTANTS AND COLLEGE ENTRANCE REQUIREMENTS.

SUPT. F. M. SHERARTS, LARIMORE.

I. HIGH SCHOOL CONSTANTS.

A constant in the course of study is an abridgement of the liberty of the high school superintendent and is to be justified because of its necessity alone. Whenever it can be shown that a subject is not necessary for the acquirement of an education for efficiency or that the requirement is no longer necessary to secure proper attention to the subject in our schools, it should be removed from the list of constants and placed upon the elective list.

In the time-honored past the secondary school men were considered unfit to frame courses and direct the thought of their students. The pro-

fessor of classics because of long years of mental abstractions and delving into the musty chronicles of the past, was considered the only fit person to select the mental diet that was to produce our scholars and train our citizens. The iconoclastic present affirms that the man on the ground whose work is with the children to be taught, is the best fitted to direct their study and mould their thought.

The right to direct the school activities of the students in the secondary schools of this state belongs to the secondary school men of the state and any delegation or any limitation of that right is an affirmation that the high school men of the state are unfitted to assume the responsibilities which the right entails. I believe that the secondary school men of this state can attack the problems confronting them and solve those problems in a way that will redound to the benefit of the various communities in which they are located and to the advancement of the educational interests of the state as a whole. I have this belief because I believe that the secondary men are well equipped by virtue of their education and experience for the work which is to be done. I believe that the standard of ability is as high as it is in Minnesota and other states where the high school men have been emancipated from the limitations to which we are still subject.

Some apprehension exists that the removal of constants would result in a lowering of the standard of scholarship in our high school by the substitution of light courses for the present solid courses. The experience of states that have granted freedom to the high schools is opposed to such a result. The state high school inspector of Minnesota, in discussing this matter in his 1907 report, writes as follows:

CHOICE OF SUBJECTS.

As compared with former years, few realize how free schools now are to frame their own courses. By abolishing the classification of schools and making state examinations entirely optional, the High School Board has, as stated previously, done everything in its power to give the high schools their freedom. The state university, the normal schools and other institution of higher learning accept so large a list of optional subjects for entrance that our schools have been free for several years to shape their courses of study to suit themselves. This spirit of freedom has extended to the students. Local courses contain options. Few schools require students to take up subjects against their will. After several years of free choice, it is reassuring to note that what may be called the solid subjects are not suffering. In fact, there never was a time in the history of our high schools when students showed a better disposition to take something solid. The lighter courses that have been proposed from time to time do not seem to prosper. Without doubt the growth of commercial and industrial subjects will reduce the percentage of students taking the traditional academic subjects. There is no danger whatever of a precipitate change.

The statistics in the following table are gleaned from the latest report of United States Commissioner of Education Elmer E. Brown. The per-

centages for Minnesota are also those given by the commissioner. They coincide closely with our own figures. The statistics relate to public high schools only. I regard the table as trustworthy. Eight states are chosen for comparison, Massachusetts, New York, Michigan, Wisconsin, Illinois, Iowa, California and Minnesota. Averages for the United States are added. In the case of subjects pursued for four years, the showing of the table is, of course, absolute. In case of one year subjects, however, such as physics, the percentage should be multiplied by four in order to indicate the true percentage of students who pursue the subject at some time during a four years' course.

PERCENTAGE OF HIGH SCHOOL STUDENTS TAKING CERTAIN SUBJECTS.

| Subject | Mass. | N. Y. | Mich. | Wis. | Ill. | Ia. | Cal. | Minn. | U. S. |
|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Latin | 39.32 | 44.58 | 31.73 | 21.11 | 46.83 | 48.61 | 48.38 | 56.23 | 50.21 |
| German | 16.97 | 34.92 | 19.99 | 26.79 | 21.12 | 15.71 | 15.45 | 28.10 | 20.25 |
| Algebra | 44.64 | 47.09 | 52.54 | 43.86 | 52.98 | 55.87 | 53.35 | 47.75 | 57.51 |
| Geometry | 26.65 | 28.11 | 23.11 | 22.64 | 27.63 | 26.35 | 29.60 | 33.18 | 28.16 |
| Physics | 17.77 | 12.31 | 14.27 | 14.03 | 14.29 | 15.86 | 12.64 | 16.42 | 15.66 |
| Chemistry | 11.04 | 6.50 | 8.47 | 3.54 | 5.70 | 2.76 | 10.04 | 9.79 | 6.76 |
| Physiography | 5.52 | 12.78 | 17.78 | 27.70 | 27.88 | 22.48 | 12.09 | 9.57 | 21.52 |
| Physiology | 11.95 | 34.47 | 15.16 | 21.59 | 29.88 | 19.47 | 1.43 | 12.64 | 21.96 |
| History | 44.83 | 33.63 | 39.46 | 42.81 | 34.23 | 36.04 | 43.49 | 43.55 | 40.88 |
| Civics | 9.55 | 15.44 | 18.25 | 12.27 | 13.55 | 21.72 | 10.91 | 10.91 | 17.97 |

This showing reflects credit on the superintendents and principals of the state. In my judgment it justifies the freedom accorded the schools.

The results that have followed the abolishing of requirements in Minnesota may with reason be expected to follow in this state, where the conditions are so similar. Reason dictates that again, some of the constants in the present list are not necessary for the acquirement of an education for efficiency. The subjects of algebra, geometry, ancient history and physics, while excellent as cultural subjects, are not necessarily a part of an education that will enable its possessor to win success for himself and be a benefactor to his fellows. Many of the world's great men in the realm of literature were unable to master the rudiments of mathematics. There are many in our schools today who are unable to master one or more of these subjects and the time spent in the vain effort is time worse than wasted, for the discouragement of failure casts a shadow over the balance of the school work. We have no right to close the avenues of higher research in all lines to those who are deficient in ability in a few. To say that a student must master a certain subject is a sinful abuse of power in the case of him who is mentally incapable of such mastery. This is an age of opportunity and we are out of harmony with the age if we debar anyone from the greatest opportunity of all—the opportunity to develop his faculties in the lien of his mental aptitude.

I am opposed also to the present list of constants because the singling out of the branches in the present list places undue emphasis upon the subjects that lead to the professions. Change has been the significant facts of our educational development. Educational methods have kept pace with the progress of thought. Colleges and universities have reflected the spirit of specialization in their broadened courses and opportunities for elective study. The high schools have attempted to keep abreast of the movement by piling subject upon subject and adding course to course. One aspect of our educational policy, however, has remained unchanged. That aspect is the emphasis which we have placed upon the subjects that lead to the professions and the ignoring of subjects that lead to the shop or farm. We have changed our methods and revised our texts. We have remodeled our school buildings and adorned the school grounds. We have acknowledged the importance of an education for the efficiency of all, but we still retain at the parting of the ways the guideboard that points to the course to be pursued by the few and leave unmarked the way that leads to the goal of the many. Every constant on the list points towards the professions; not one towards the farm or trade.

I believe that such emphasis has produced serious results and that its continuation will be tolerated little longer. For several years complaints against our public schools have been growing in number and increasing in intensity. At former meetings of this association letters have been read from Jas. J. Hill and other prominent men, asserting that our high schools were not fitting students for efficient work in the affairs of life. We have long denied these allegations, but are beginning to be forced into a recognition of their truth. Here and there educational institutions have heeded the demand and the time is not far distant when every institution must bow to the popular demand.

This demand for a change in our secondary school courses is not a sudden growth but the result of a great social movement necessitated by the change in our economic development. In the early history of our country, the college was for the professional man alone. The tradesman and workman secured his training through the system of apprenticeship. Academies and colleges prepared the student for the professions and apprenticeship prepared the masses for workshop and trade. No preparation was considered necessary for the work of the farm other than the experience afforded by the work of farming.

The migration of the population to the cities led to the extension of the high schools and the gradual disappearance of the academies. The high schools assumed the work of the academies and became preparatory schools. As long as the old economic conditions prevailed little harm resulted. But when the apprenticeship system gave way to the modern industrial system with its lack of training for the youths of the land, there was a movement of the children of the masses into the secondary schools. The function of the high school changed. What had formerly prepared its students for college must now prepare them for life. The recognition of the changed function of the high school was slow and the present movement for vocational training is the result of the awakening of the masses.

This awakening has been followed by a recognition that educational courses designed for preparatory schools was unfitted for the training of youths, the majority of whom were to obtain their whole schooling in the secondary schools. This recognition of the failure of the high schools to meet the needs of the communities in which they are placed has been followed by a demand for reform. The state of New York has passed an act providing for industrial and trades schools. A bill is pending in congress for the establishment of agricultural high schools. The city of Boston has been experimenting with considerable success with summer trades schools. It is a movement that we cannot afford to minimize.

The movement is not lacking in cultural significance also. The various intellectual activities may be grouped into classes, the subjective or mind absorbing activities and the objective or soul expressing activities. The latter without the former are impossible and the former without the latter are valueless. A course for the symmetrical development of intellectual activities must provide for the expression of activities as well as to provide for the acquisition of such activities.

In our present system, we are prodigal of opportunities for intellectual acquirement but sadly deficient in opportunities for expression. All of the movements towards expression that have been made have been directed along the line of the professions and little or nothing done towards the workshop or farm. Writing, debating, drawing, music, laboratory work in the sciences are all milestones along the way to the professions.

The result of this misdirected emphasis has been to direct into the professions very many who should have taken up the workshop, the trades or the farm. Over emphasis of subjects which are cultural to the masses has resulted in the under-valuation by the masses of those activities upon which their success and prosperity depend. Boys are now wielding the pen who should be guiding the plow and girls are preparing for office or school room who should be preparing for the activities of the home. As long as we continue to emphasize the subjects leading to the professions and merely tolerate the subjects preparing for the vocations, so long will this condition exist, and so long will our high schools fail in their proper function in the community.

Another objection. A requirement that cannot be enforced upon all schools alike ought in justice to be repealed. Letters from city superintendents and inspection of their courses of study show conclusively that several of the principal high schools of the state are ignoring the requirements of the high school board in so far as they relate to constants. One city superintendent writes, "I have never paid much attention to the list of constants but have arranged my courses to suit the needs of my community, changing the same from year to year to meet varying conditions." Another writes that although he has required all students to take the required courses he has made a practice of issuing local certificates to students failing in the required courses, a thing he never does in the case of an elective study. In short the present constant requirements are considered burdensome by some of the principal superintendents of the state and are being ignored or evaded.

Many superintendents believe, also, that present requirements are a bar to the extension of industrial courses. I am not sure that that belief is well-founded. The testimony of those who have given most attention to the industrial courses, especially manual training, is that students are able to master the required work and the industrial work in addition. Considerable objection is raised to algebra and geometry in the commercial courses, commercial arithmetic and accounting being considered preferable. That the constants are a serious bar to the introduction of industrial work I am loath to believe, but that they are considered to be so by many superintendents is an indisputable fact. The apprehension that the constants will prevent the adoption of industrial courses has undoubtedly retarded the introduction of such courses in some instances and will continue to do so. To a small degree, therefore, the constants are an obstacle in the way of introducing vocational training into our schools.

The principal objection that I have to the presence of constants aside from the undue emphasis they give to the cultural subjects is that their presence belittles the work of the city superintendent. As stated before, the limitation of the superintendent's right to frame courses of study for his pupils carries the inference that he is incapable of assuming the responsibilities that his position presents. The salary and standing of a superintendent depends upon the nature of the responsibilities which he assumes. A city superintendency will never be considered in its full importance as long as we are willing to tacitly acknowledge our weakness by welcoming or passively enduring the assumption by others of one-half of our responsibility for a course of study. It is time for the secondary school men of this state to claim the right of framing courses of study as their own and stand ready to assume the responsibilities involved.

COLLEGE ENTRANCE REQUIREMENTS.

A discussion of college entrance requirements necessitates a brief resume of the relations which should exist between the secondary schools and the institutions for higher learning. As we have stated before the dominating function of the high schools, before which all else fades into insignificance, is the function of meeting the educational needs of the students who will complete their schooling within the walls of such schools. The work preparatory to advanced research in the institutions of higher learning is an unimportant incident to the real vital function of fitting for life. The determination of the subjects to be pursued in such schools is the work of the city superintendent and his alone. This work should not be delegated by him to the institutions of higher learning nor should he permit it to be assumed by them or others.

The function of the institutions of higher learning is to furnish the students from the secondary schools with opportunities for advanced research in the lines of their greatest aptitudes. The work of preparing students for the learned professions is only an incident. If each unit of our educational system is to reach its maximum usefulness, it must direct its energies towards the meeting of the needs of the masses of students enrolled leaving the units beyond or below to solve their own problems. Consequently the colleges should in no sense be preparatory schools

for the professional schools. The N. E. A. report for 1899 contains a section that is admirably stated and apropos to the subject we are discussing. It reads as follows:

"College courses ought to be so adjusted that every pupil at the end of a secondary course recognized as excellent, both in quality and quantity of its work, may find the doors of every college swing wide to receive him into an atmosphere of deeper research and higher culture along the lines of his mental aptitudes.

"Every young man or woman who has successfully devoted at least four years to earnest study in a well-equipped secondary school should be admitted to any college in the country, whether such pupil has devoted a greater part of his time at Latin, Greek and Mathematics, or to Latin, Modern Languages and Mathematics, or to Latin, Mathematics and the sciences, or to any other combination of studies which has developed his power and been in harmony with his intellectual aptitudes.

I believe that the time will come shortly when universities and colleges will be compelled by the march of events to assume the following positions:

1st. Whatever is properly a high school subject is to that extent proper and effective preparation for university study.

2nd. That the high school curriculum is primarily a problem for the secondary school men, and that the university, while lending its assistance by way of advice and insistence upon high standards, shall avoid all intent or appearance of dictation.

3rd. That the entrance requirements shall be limited to the amount and quality of the work done, this to be determined by high school inspection.

Under present conditions less than five per cent of our public school students ever reach the university, yet the latter through its entrance requirements, dictates to a considerable degree the courses in such schools. Our institutions of higher learning should not be run for the training of the few and dictate, even indirectly, the training of the many. We believe that classical training is important, but protest against the advocates of this training decrying the value of vocational training for the masses and so fixing the requirements for admission that pupils of the high schools are directed into professions for which they are by nature and environment unfitted.

I am sure that the modification of entrance requirements to permit freedom to the secondary school in the framing of courses of study will have no injurious effect upon the standard of scholarship in our institutions of higher learning. Leland Stanford Junior University has pursued the policy we advocate since its establishment. President David Starr Jordan in answer to a recent letter of inquiry as to the effect of the policy upon the standard of scholarship of entering students wrote as follows:

"Our institution has from the beginning had entrance requirements in which all reasonable high school subjects are accepted. It has had the advantage of allowing flexibility to the high schools, and of allowing us to receive students from all kinds of schools, from Finland on the one hand to Calcutta on the other, and we have not suffered the slightest inconvenience from the lack of prescription in the work. Practically all of the

students have had the usual amount of mathematics and English, and any deficiencies are matters easily corrected after the students come."

The University of Minnesota has no entrance requirements other than English.

To summarize: Constants are entirely unnecessary. All the emphasis that should be given to the subjects in question would be given to them by the superintendents without any compulsion on the part of any board.

Not all the subjects on the present list are necessary for a liberal education.

Experience in other states proves that the granting of freedom to high school men would not result in lowering the standard of scholarship.

The singling out of the academic subjects on the present list places undue emphasis upon subjects leading to the professions.

Present requirements are, by many high school men, considered an obstacle to the introduction of vocational courses.

These requirements are ignored and evaded by some of the larger schools and in the spirit of fairness should be removed.

The limitation of the right of a superintendent to frame his own course of study belittles his position and lowers his educational standing.

The high school's all-important function is to meet the educational needs of the community in which it is placed.

The control of the institutions of higher learning over the secondary schools should be limited to the quality and quantity of the work done, leaving it to the high schools to determine the subject matter.

The principal function of the college is to furnish opportunities to the graduates of the secondary schools for deeper research along the lines of their previous training.

Any subject proper for high school study is proper preparation for further research in the same direction at a college.

If this association at its present meeting shall go on record in favor of granting to the high schools the freedom to work out their own problems in their own way and recommend that the colleges confine their restrictions for entrance, to the quantity and quality of the work done, much will be done towards putting our high schools into more vital relations with the needs of the people.

The Committee of Seven's recommendation should be adopted. If the discussion of this paper shall lead to that outcome the writer's effort will not have been in vain.

THE DOCTRINE OF FORMAL DISCIPLINE.

PROF. A. P. HOLLIS, VALLEY CITY NORMAL.

The Doctrine of Formal Discipline, briefly stated, is that power developed in the pursuit of one subject or exercise may be applied effectively to totally different subjects or exercises. The word formal here refers to the form of mental action developed to the method and habit of mind produced.

Formal discipline has been given a place here, I suppose, because of the direct bearing it has on vocational training—for vocational training demands the admittance into the curriculum of new subjects which have heretofore been denied admittance by this very doctrine of formal discipline, and which are now before us for appraisalment.

The common illustration used is that the power developed by hard mathematical study so disciplines the mind, that the student is fitly prepared for leadership in politics and war. It has been pointed out that the Cambridge wranglers in mathematics have been among England's most successful statesmen and warriors. The doctrine received little opposition until it began to be used as a weapon for keeping new subjects of study out of the school curriculum. Used in this way, it became the chief argument for defending the classics and pure mathematics as against the sciences and manual arts. In some cases, indeed, where but little future practical use could be adduced—as in the case of algebra for those who do not continue the study of mathematics—it was claimed that the mental discipline, alone, gained in solving hard problems, justified its commanding position in the course of study and the requirement that all students should study algebra, irrespective of their capacities or probable future courses. The same reasoning kept Greek and Latin as requirements for college entrance.

This led the advocates of the new subjects—the new educationists—to attack the dogma of formal discipline itself in order to secure new standards for judging the relative values of school studies.

Upon the breakdown of the old faculty, psychology, which assumed that the mind was divided into more or less discreet powers such as memory, imagination, will and feeling—the psychological argument seemed in favor of formal discipline—for if the mind functions as a unit, all parts of which affect all other parts, then the view was probable that mental energy—power—was thus unitary and homogeneous, and consequently that the power of attention developed on Greek roots could be generalized by the unit brain and set free upon occasion to build a bridge or classify a mineral. And here the argument might have rested had not aid come most unexpectedly from the best allies of the psychologists, the physicians. In 1861 Paul Broca, an eminent French hospital surgeon, announced the discovery of the definite area for articulate speech, and by 1870 Hitzig, Ferrier, Munk, Charcot and other had demonstrated beyond question that the brain is most curiously divided into functional areas, undistinguishable anatomically from each other, but easily located by functional disturbances of the nervous system. These areas, moreover, occupy the same relative positions in all brains—in right-handed people the left brain only is functionally active, while in left-handed people it is the right brain only which develops these areas. Dr. Thomson in his *Brain and Personality*, has recently shown that these areas are not merely the large divisions, known as visual, auditory, motor and so on, but that the various forms of aphasia reveal areas within areas, that the visual area, for instances, has one department for receiving the visual sense impression and quite another contiguous structure for interpreting the sense impression, so that numer-

ous instances are now on record of patients who could see words as well as ever, but to whom they meant nothing—or whose auditor areas were perfectly intact so that all sounds could be heard distinctly but a clot of blood interrupted the nutrition of the interpreting area so that all meaning of the sound was lost. This being true, it is difficult to believe that the power of visual attention to a mathematical formula thus so definitely locating itself on a special group of brain cells can spread itself to distant areas in such a way as to reappear again as trained power to observe the fungi in a swamp or a strategic position on a battlefield.

We have no physiological reason yet for believing that the associative fibres connecting impressions in various areas so that they fuse when coming from one object, will in a similar fashion fuse impressions coming from widely different objects and received at periods of time far removed from each other. When, however, there are common elements in diverse situations a limited fusion may be expected and to that extent a formal discipline gained under one set of circumstances may have a physiological basis for functioning under a different set of circumstances containing common elements with the first.

The argument from experience seems to both support and condemn the doctrine of formal discipline.

Do the common experiences of life show that men who have specialized in some one subject become possessed of a power in the same degree or in anything like the same degree in departments of life other than their specialty? Ask the professor's wife if his exposition of Browning bears noticeably upon his ability to put in a window light. Mathematical professors who devote themselves to the more abstract problems of pure mathematics are famous for their absent mindedness in other affairs. It is related of Professor Peck, of Cornell University, that one morning on his way to school he thought the long walk would be an excellent opportunity for continuing the solution of a difficult problem and did not notice that he started on his way with one foot in the gutter and the other on the sidewalk. And being addicted to the straight line habit, he continued his walk in this way until he reached the university. One of his colleagues noticed the peculiar way in which he was walking and shouted out "Hello Professor! What's the matter with your left leg?" "Why, I don't know," said the mathematician, in a vague sort of way, "but now that I think of it, do you know, one of my legs seems to be getting shorter than the other."

And it is related of a certain Harvard professor who was thinking of Greek constructions while out walking, that he met a cow, and scarcely noticing what it was he took off his hat and bowed as if he had met a young lady. Noticing his mistake, he was not a little chagrined. Soon, the story goes, he did meet a young lady, but having by this time got engrossed again in his Greek verb, the professor, supposing he had met the same cow, said roughly, "Get out of the way, you brute." While these floating stories may not be true of the particular persons whose names they attach to, they yet indicate the popular conception of the kind of formal discipline acquired by specialists. Nor are the limitation of particular

training confined to college professors. Clerks, soldiers, physicians, all bear witness to the limiting influence of their special study. A case in point is related of a kindly old physician who had company for dinner. The operations involved in carving the chicken started the series of thoughts and actions involved in carving his patients and he became so lost to present company, that at the conclusion of the operation, he gave the mutilated chicken a gentle pat, replaced the leg, and said gently, "There, with proper bandaging and quiet, that will soon be well again."

Now this last story shows both the weakness and the strength of the formal discipline theory—for while it shows that the old physician was not aided by his special study to appreciate the total situation, it shows also that where his special training met a familiar element in the new situation, it functioned most efficiently—for the story admits that the carving was done in a manner befitting an expert.

And this brings us at once to the most important modification which the formal disciplinists will have to accept before their view will gain general confidence. It is thus—practice or discipline in any particular line, spreads to other lines only so far as identical or similar elements are found in the new line. If this is true, then those studies should be found most prominently in a course of study, which contain the largest number of elements that will be duplicated or approximated in the general experiences of the life of every community. And if manual training or civics contain more of these repetitional elements than Greek, then they should at least occupy a more commanding place in the curriculum than Greek. That this view has finally gained the ascendancy is shown by the fact that no state high school in North Dakota or Minnesota offers a course in Greek, whereas twenty years ago scarcely a high school in the country, state or private, omitted it. If the mere general sharpening of the wits were the desideratum in studies, then the game of chess might well be substituted for Greek. When the formal disciplinists prefer Greek to chess, they do so upon the same ground that English may be preferred to Greek, namely, that the data through which the sharpening is obtained, contain more connections with the needs of life, thus possessing what we call a larger cultural value.

Modern psychology goes further and maintains that a special discipline or training cannot be separated from the data out of which it arose. There is no such thing as a general power of attention gained from prolonged attention to any particular study or data. The spirit needs the clay through which it works its way to power. The biologist's attention to the antennae of the butterfly will always function most surely to a biological stimulus, and because he has trained attention in insect study he cannot be sure of trained attention to a lecture on music nor to careful attention to the details of a life insurance policy. He might see more of scientific accuracy in a poem on a bird than the astronomer, but on the other hand the astronomer will see more distance and atmosphere than the biologist.

We are on sure ground in this controversy when we say, to paraphrase Wordsworth—that our power comes trailing clouds of the dust from which it sprung—and it will find its applications and affinities most readily

when it meets again in life, situations that contain this dust. And within the limitations of common elements we may readily admit the spread of power from one function to another as claimed by the advocates of formal discipline.

I recall now a story told me by a friend of a child who obeyed his mother perfectly at the table, but nowhere else about the house. The lack of spread of discipline here being due to the lack of common elements between table manners and other household manners. It is true the common element of the mother was present at the table and in the rest of the house, but the other concomitants were so different that the child reacted to the divergent rather than the common elements. For instance, father was usually at the table—though not usually around the house. At table the child was sitting and busy and interested at the legitimate task of the table—eating. Around the house he was not sitting, not busy at legitimate household tasks, and not so vitally interested as in eating. Thus the obedience enforced at the table did not organize itself into a general power of obedience because the table regimen was so far removed from the general household routine.

It is a matter of common observation also with both teachers and parents that children who are very obedient in school may be very unruly at home—pupils who study attentively in school cannot be made to take up a book at home. In most cases we may conclude that the formal discipline did not work because the programs and personalities of the two institutions, school and home, were too different for the child to seize on the common elements.

Dr. Bagley conducted a series of experiments at the Montana State Normal School to ascertain if the habit of producing neat papers in arithmetic will function with reference to neat written work in other studies. He says: "The tests were confined to the intermediate grades. The results were almost startling in their failure to show the slightest improvement in language and spelling papers, although the improvement in the arithmetic papers was noticeable from the very first."

In my own case, I knew a professor of rhetoric whose books brought out in fine relief the aesthetic values of literature, yet whose personal appearance on the campus was so slouchy and unesthetic as to cause remark. I have known also art teachers who appreciated to the full the harmonies and symmetries of their specialty, whose own rooms and clothing nevertheless gave no evidence of superior training. In these cases it is evident that the esthetic habit had not become generalized so that it functioned with other than the data with which it was customarily associated.

In citing arguments from common experience, however, the educator should allow proper discounts for common fallacies. Thondike calls attention to the well-known universal fallacy of selection. For while much attention is given to the selection of studies by pupils, little attention is given to the selection of pupils by studies—that is to say, to quote the same authority, our "educational agencies are a great system of means not only of making men good and intelligent and efficient, but also of picking out and labeling those who for any reason are good and intelligent

and efficient. In the latter case they may be said to improve not the production but the distribution of mental and moral wealth. Since those who succeed in the study of Latin are better in general discrimination and judgment than those who fail, we conclude that learning Latin vastly improves general discrimination and judgment. Since those who succeed in science are more efficient observers and reasoners about concrete things than those who fail, we conclude that science is the mother of general observation and concrete inference." Whereas, a large part of the ability shown by successful students is native and school studies serve to test and label this native ability; and much of the growth that we fond educators are wont to ascribe to our superior methods and subject matter is really due to the normal maturing of mental and physical powers—a maturity which would take place in but little altered form if the student had emerged through a somewhat different educative environment. Many heroes and constructive leaders of antiquity could not read and knew little of technical schooling; and many captains of industry today and leaders of men are but little scathed with learning. Formal education should supply the environment and discipline which favor the natural power and brings it to the surface. There can be little doubt that if school were closer to life the contrast between bookish scholars and unlearned men of affairs would be less humiliating than it is today.

Dr. Bagley in his *Educative Process* calls a generalized habit a psychological absurdity, but, he goes on to say, while this theoretical evidence is unquestionably sound, it has not operated to prove the theory of formal discipline to be a practical fallacy; largely perhaps, because experience seems to demonstrate that notwithstanding the theoretical absurdity of the statement, habits are generalized. Cases are cited in literature, and can easily be multiplied from individual experience, which indicate that a thorough training in the mathematical disciplines has given one an increased capacity for efficient reasoning in other lines, and that insistence upon neat work has had a beneficial effect upon the neatness of person and dress. In fact, so conclusive is this empirical evidence that the theoretical impossibility carries little weight. The author then goes on to cite his own experience as between the habit of work at school and work at the wood pile. At first, he states, the work habit acquired in school does not function at the wood pile on the farm during vacation—at first. But after repeated distasteful efforts the farm work becomes as much a matter of course as the school work—a new habit of work with different data has been acquired. Now this simple experience, says Dr. Bagley, shows two interesting things: First, the ability to work was not carried over from school life to farm life. And yet something was carried over. The formation of the new habit of work was undoubtedly done with greater economy of time and energy than it would have been had not a habit of work already been developed in another field. What I carry over from my school work to my farm work is not a generalized *habit* of work, but a generalized *ideal* of work. It is something that functions in the focus of consciousness and hence cannot be identified with habit, which always functions marginally or subconsciously. This ideal furnishes a motive, and this

motive holds me to conscious, persistent effort, until the new habit has become effective. If I had acquired a specific habit of work in one field, without at the same time acquiring a general ideal of work, my acquisition of a specific habit in another field would probably not be materially benefited.

Here, then, may be the secret of the paradox—the paradox that while scholars have quite generally abandoned the theory of formal discipline, parents and teachers have just as generally clung to it in practice—the practice of training up habits. The justification of the psychologist is this knowledge that habits cannot be generalized; the justification of the parent is that ideals gained through a specific habit, may be retained for future use as a motive for new habits in a new field. If this is true, the place of ideals in our public schools seems to be even larger than we have imagined.

It is not the function of this paper to discuss the values of particular subjects, nor the proportion of time they should receive in a broad scheme of education; other titles on this program indicate that this will be done elsewhere. My topic will have contributed its share to the general theme of vocational education, if it has pointed out in a fair and impartial manner the grounds on which any subject must be judged before its place can be determined.

I wish to summarize these remarks with a quotation from Paul Hanus, of Harvard University, who has become one of the foremost students in America of the problem under discussion:

"We may say," says he, "that the kinds of power developed by a given subject will be : (a) Specific—depending on the particular data with which the subject deals; and, (b) general—depending on the extent to which the same or similar data are found in other subjects, and the extent to which the method in one subject may be applied to another subject."

To this same statement ought to be added the further condition put forward by Bagley, for judging special subjects, namely, the extent to which the subject has been made to yield ideals that may be carried over into other kinds of data.

If this were not a general audience, I should like to cite certain laboratory experiments of recent date that testify to the same truth by different method. Suffice it to say that the laboratory investigations of Thorndike, Woodward, Gilbert, Fracker, Judd and Blair upon living subjects sustain the conclusion we have reached that mental function gained from specific data does not spread to other functions unless there are like elements in the data, and if it means anything it means that those aristocrats of the course, Greek, Latin and mathematics are little if any superior to other subjects for the production of mythical general mental discipline. The argument now for a place a study occupies in the curriculum must be not from the form of mentality it induces, but from its content value, since it is probable that any study pursued with vigor and intelligence will yield a valuable mental discipline. It may well be that these ancient studies while losing their doubtful Divine Right to rule, will, on these new grounds, share a common human right to find a useful place in the general scheme of human culture.

CULTURE.

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When we say culture we may refer to culture as an educational ideal or we may use the term in a popular sense meaning those characteristics that are suggested when in ordinary conversation it is said that "she is a highly cultured person," or "he is a man of culture."

Let us consider culture first in the current implication of the term, not as an educational ideal. We find that culture here refers particularly to the phenomena and characteristics of what we may call the upper classes. In the time of knighthood the young man was cultured who could dance, sing, take part in tourneys, make love in a protracted, evasive and conventional fashion, and in general grace the historical fad of chivalry. With broadening geographical knowledge cosmopolitanism became a trait of culture. Here the ability to speak French, discuss remote countries and scenes and imperturbably face strange menus was a mark of high caste. When we swing into the current of historical puritanism we find that the approved cultural signs include technical knowledge of the scriptures, great piety, solemnity, and a repression of non-religious emotions. In the south on the other hand different but easily noted idiosyncrasies set off the cultured person from the rest. The gentleman is marked by a gracious bearing, specialized ability to act at ease while the slave does the work, a hauteur and individualism intensifying a sense of honor, skill in horsemanship, rhetorical leanings, and connoisseurship in mixing drinks. The feminine half were characterized by a similar spirit expressed in feminine forms. The young woman learned to embroider, dance, entertain graciously, play certain musical instruments, dress elegantly and secure delicate deference from all sorts of people. The negroes recognized the typical marks of the superior culture. A southern college president, representing the puritan culture, was called "poor white trash" by an old negro woman who had been a slave of the Clays. Another old negro woman said a certain woman from the north was not a lady because she treated her negro servant so well.

In our immediate period culture means different things to different places and people. In the big eastern universities athletic prowess has given scholastic culture a tight squeeze for first place. Popular opinion rates high successful acquisitiveness as exemplified in the wealthy business man. In the scale of values financial ability take a high place in popular appreciation of excellence and worth. In social circles the ability to play a fierce game of whist is not to be slightly regarded.

It is evidence that culture as defined by popular appreciation of qualities varies with the age and fluctuates with the changes in general society. Nor is there in any one period, for example the beginning of the twentieth century, unanimity as to what makes a cultured man. It is easy to frame a conception of culture that is satisfactory to the individual who frames the conception, and he may easily mistake the satisfaction he feels with his

definition for the consensus of opinion. But there is little harmony in view. The scientist may think the Latin devotee essentially uncultured. The man who has identified literary association with culture thinks, perhaps, of the scientist as a mere "bugologist," who should be tolerated but not admired. The military man idealizes the culture with which he is connected. The civilian on the other hand has little respect for the traditions and culture of the military man. Ask any man you meet for a definition of culture and he will describe as a culture ideal the culture which he for the most part is closely associated with. The musician will say music. The literary man will say literature. The business man will say executive ability.

We shall not get very far in laying a basis for a scientific definition of culture by taking the naive pronouncement of the people we meet. It is true that if we meet mostly one class we may be deceived into thinking that we have the question settled. For a scientific definition of culture we must go at it in a scientific way. We must eliminate the personal equation, and back away from society and look for the abstract truth. Some of us may have to legislate ourselves out of office. We may find that what we represent personally is not to be recommended as a scientific definition of culture. What we want is a definition of culture that will do for an educational ideal. While the general public may wobble in its conception of culture, if education is a scientific undertaking, the educators ought to be able to agree upon a conception of culture that should be fairly permanent and universal.

Culture as an educational ideal must be defined from the standpoint of psychology and of sociology. We must examine the powers and nature of the individual and the nature and organization of society. Culture will represent a balance between personality and society.

Let me illustrate the relation between the two. On the purely individual side, a person might be trained for physical well being by exercises in archery. Leaving society out of the question archery might be as good educationally as manual training with modern tools. But we must keep society in mind. The conclusion is then that since manual training with modern tools is just as good for the individual as is archery, and since manual training with modern tools is far better for society, manual training it is.

What are the capacities of the individual that should be tabulated to get a line on ideal individualistic culture? Here the aim is that the individual should be a full man. No faculty neglected; no power undeveloped; no field lying fallow that might yield happiness. The individual is to experience up and down the scale of his nature.

The physical nature is to be noted. Health, ease of movement, strength, dexterity and joy in the body.

The social nature. From the standpoint of the individual there must be development and outlet here. The moral and religious capabilities are subdivisions of this. The individual clamors for expression in these lines. Education must recognize the traits of the organism that have accrued through ages of living in groups.

The intellectual nature. Since time began for the human race the brain has been solving problems. Perhaps the problem was once how best to kill a snake with a stone. The problem today may be the Mendelian law. Anyhow humanity has wrestled with intellectual or thought problems so long that it has acquired a taste for answering hard questions, and the culture of the individual must recognize the joy and occupation of thinking and knowing. If society were not interested in having answers to questions, still for the pleasure it would give the individual he must still go on answering questions.

The emotional nature. Feeling accompanies all intellectual activity and is the medium of happiness. So we must permit and even encourage people to feel. They will get more satisfaction from feeling right than wrongly. Then let us guide to the more refined pleasures of emotion. Art and music, the play of imagination over literature, and the whole gamut of civilized emotions calls for a place in the culture of the individual as an individual.

Action. The past biological history of the race is a story of action. What pleasure is like that of getting things done, or at least the process of getting them done? Personal enjoyment calls for expression in action. Then let our ideal of culture make a place for doing, or willing.

Looking at the educational ideal of culture from the side of society, what must the individual have to be acceptable? We have considered him alone. Let us see him in relation to society.

The demands of society are resolvable into three essentials—those of the production, consumption and distribution of wealth. These three processes are fundamental social facts. A multitude of relations between the individual and society are easily grouped under these processes.

The production of wealth is by labor. Wealth is the basis of civilization. It follows that every member of society should be a producer. Society requires that we insert in the ideal of culture the quality of individual productiveness. The members of society should be skilled to do the work necessary for the maintaining of the wealth basis of civilization. A helpless person, unable to add to the wealth of society by his skill in productive labor, is to that extent uncultured. Once the person who was most divorced from productive labor was gladly given the crown of worth by the blinded and abject bourgeoisie and peasants. The marks of toil were social stigma. Enter fashions that imply unproductiveness, as white hands, long finger nails, high heeled shoes, foot-binding, rakish and unmanageable hats, powdered wigs, textiles so delicate as to be ruined by contact with mere things, stiff corsets that prevent the play of muscles, and so on. When the first engineering student in a pair of overalls appeared on the campus of Cornell University conceive the shock that passed eastward through the university world, disturbing the sacred tradition that real work is a disgrace. Industry must appear in a scientific standard of culture.

Consumption means the use of wealth. The cultured person must know how to use wealth in socially acceptable ways. Here the considerations are taste, refinement, well balanced living, unostentatious standards, health, sympathy and the avoidance of vulgarity, vanity and egotistic dis-

play. In fact the consumption of wealth is identical with the question of how to live. When the member of society consumes wealth in ways acceptable to the real interests of society he is evidencing a culture that meets the requirements of scientific definition.

• A culture requirement is also suggested by the economic or social process of distribution. Wealth is distributed among the members of society by taxation, interest, profits, wages, gifts, public improvements and dividends. The actual manipulation of the means of distributing wealth is the concern of government, which tacitly permits or expressly licenses everything that is done in society. The present stage of civilization necessitates active civic interests as elements in culture. The question of the distribution of wealth, related as it is to vice, crime, pauperism, child labor, hoboism, disease, undernutrition, despair, envyings and strife, strikes, political corruption, illiteracy and inability to marry, is so fundamental that no ideal of culture, defined from the social side, would be complete without the inclusion of civic intelligence, and zeal and discernment in social, economic and political matters. The so-called cultured man who knows nothing of government, who reads his battered copy of Homer in scholastic reverie, while underneath his window underfed children crawl to imperfectly developed schools and a sewer main with political associations oozes poisonous gas, is a relic of old cultural ideals and serves ill to illustrate the composite culture called for in an age of close social interrelations.

The problem of modern education is to harmonize the claims of the individual and the claims of society. Possibly the reconciliation will prove to be easy. Who knows but that the attitude of mind and the personal qualities of the young woman who studies domestic economy will prove superior to the residuum of culture left after years of Latin? Who knows but that the young man broadly trained for social service through industry will far outclass in genuine refinement and manly fiber the product of the older individualistic education. We know how refreshing it is to talk with the man who does real work, and feminine character can rest on no sounder basis than a knowledge of the eternal verities not ill symbolized by a loaf of good bread produced by a conscious application of science.

The social relations are so many and complex that no power of mind, no possibility of character will escape development even if education plunges boldly into the industrial and sociological tendency.

From our courses of study should be eliminated those pursuits that are merely decorative, merely conventional, grudgingly useful—those that do not manifestly grip into life as it is here and now. We will not undervalue the past, but by what strange inversion of appreciation is it that one can admire a mythological flying Mercury and be unaffected by the aeroplane?

The educational readjustment of today is of cosmic extent and significance. It is a reaching out for newer types of culture. The individual will not be lost and effaced by concessions to society. He is always relative to society. The era of co-operation, co-ordination and internationalism into which we have passed will change but not destroy criteria of personal development.

It should be very easy to define the cultured man. His faculties are all in full play. He lives throughout the gamut of physical, emotional and intellectual experiences. But not selfishly. His physical, intellectual and emotional life is expressed in relation to society. The grandest synthesis ever given to the world it is possible for education to give in establishing a bridge of culture one end of which shall rest on individual nature and the other on social need.

DEPARTMENT
OF HIGHER AND PROFESSIONAL EDUCATION

MINUTES

OF DEPARTMENT OF HIGHER AND PROFESSIONAL EDUCATION.

FIRST SESSION, DECEMBER 31, 1908.

The meeting was called to order by the president, Prof. J. M. Gillette.

Dr. Hugh Buffum of the Valley City Normal presented a paper on the Concept of Vocational Education and Method of Realization. This was discussed by Dean Kennedy and others.

The paper on Vocational Education as the True Education for Leadership, by Prof. A. M. Bean, of Fargo College, was read by title only, by reason of Prof. Bean's absence.

Dean Brannon of the State University read a paper on, How May Our Higher Institutions of Learning Train for Farm Life Rather Than Away From It. This was vigorously discussed by Professors Knowlton, Waldron, Weeks, Willard, Squires, Pres. Vittum and others.

Prof. C. R. Waldron of the Agricultural College, read a paper entitled, "College Responsibility in Developing Courses Looking Toward the Improvement of Rural Social Conditions." Discussed by Dr. Stearns of Wesley College and others.

Prof. C. C. Schmidt was elected as the representative of this section on the nominating committee for the general association.

Prof. Brannan introduced a resolution, which was adopted, asking the appointment of a committee to consider practical methods to be used by the various institutions represented in this section for improving rural conditions, said committee to consist of one representative from each institution, to be appointed by the head of the institution.

Adjournment.

SECOND SESSION, JANUARY 1, 1909.

The meeting was opened with the president in the chair. The first paper, "What Normal Schools Should Do to Train Teachers for Teaching Vocational Subjects, Etc.," was presented by Prof. H. P. Butterfield of the Mayville Normal School. In the absence of Prof. Burch of the School of Science, who was to have lead in the discussion, further consideration of the paper was omitted.

The next paper, "Affiliation in State Association," was presented by President E. P. Robertson of Wesley College, and was discussed by Pres. McFarland of the Valley City Normal.

The last paper was given by Prof. Calvin C. Crouch of the State University. Its title was "The Most Practical Lines of Engineering Education in an Agricultural State." It was discussed by Prof. McArdle of the Agricultural College, President Worst, President Robertson and others.

Dr. N. C. Schaffer, State Superintendent of Public Instruction of Pennsylvania, who had recently entered the room, was invited to speak, and

through a reference to the large number of students connected with correspondence schools, initiated a lively discussion of the question of vocational education. Among those who participated were Prof. Squires, Miss Ramlin, Prof. Kennedy, Prof. McMullen and Prof. Knowlton.

The business session followed. Prof. Charlton Andrews of the Valley City Normal was chosen president, President W. M. Kern of the State Manual Training School, vice president, and Prof. Knowlton was re-elected secretary. Adjournment.

P. G. KNOWLTON,
Secretary.

CONCEPT OF VOCATIONAL EDUCATION AND METHODS OF REALIZATION.

PROF. HUGH S. BUFFUM, STATE NORMAL, VALLEY CITY.

The complete topic assigned to me by the President of the Department of Higher and Professional Education is practically that stated in paragraph number two on page eight of the preliminary report of the committee of seven. The statement of this topic as submitted for my consideration is: Concept of vocational education and means of realizing it: 1—Define and locate meaning; is it one end among many, or the dominant end to which other educational ends are contributive? 2. Methods of reconstruction: (a) The school program as a whole socialized; (2) The various subjects by elimination and substitution.

The question of vocational education is attracting just at the present time, very great attention from educational thinkers and still larger attention from educational writers and talkers. Pick up almost any educational periodical—from our great professional magazines to the poorest excuse for a school paper published—and on almost every page you can find some discussion bearing either directly or indirectly on this topic of vocational education. Go to almost any general gathering of educators, and you will find a large part of the program pertaining to this same topic. All along down the line, from the sane and profound educational philosopher to the shallowest prattler who gets all his ideas at second hand, vocational education is being considered and discussed. Its most enthusiastic advocates are over sanguine as to what it will accomplish. Many boys drop out of school: we should introduce vocation studies. Many high school graduates are failures in real life: solution—vocationalize the high school course. Many graduates of colleges and universities are impractical dreamers, some of them super-esthetic loafers: the college should be changed into a higher technological institution. Many children never go through the eight grades: by all means they should be caught and taught some trade before they escape from their school life. Germany's foreign commerce is increasing: Americans must do something about that, and what we must do is to develop vocational education. All wrongs may be righted; all weaknesses made strong; all ills may be cured; and the one thing needful is vocational education. Judging from a glance at the current literature of our profession, we are led to feel that no other topic in recent years has pushed itself so prominently into the thoughts of both the laity and the priesthood of educators. To some, the introduction of vocational work into the public schools is considered of the most vital importance. Others consider it one of the veriest fads, such that, if generally adopted, it would soon be relegated to the educational ash-heap along with the monitorial system, concert reciting, and vertical penmanship. If its most enthusiastic supporters could fully realize their

desires, I have no doubt that they would be disappointed in the results. Yet I am quite sure that there is much to be gained from introducing into school work something of what the vocationalists argue for. As is so often true, there is a golden mean between these two extremes, at which we shall probably arrive as a result of our thought on the matter.

One of the chief causes of difficulty in the discussion of vocational education is the fact that we differ so much in our concept as to what the term "vocational education" means. To some writers it means any educational activity or the use of any educative subject matter which pertains to any life vocation. This is too general and broad a definition for the term to have value for us in our educational thought. On the basis of this definition we can have but the vaguest and most indefinite idea as to what vocational subject matter or vocational training may be. From this point of view, all of geography which pertains to man's efforts in gaining a livelihood is vocational education; all of arithmetic, reading, history, civics, economics and literature, in so far as these subjects treat of man's vocation, should be listed as vocational subject matter. This definition is too general to be most useful in our thought.

Again, the term "vocational education" is by some writers used to mean any educational activity or the use of any educative subject matter which will contribute toward making the pupil more successful in the future vocation which he may later choose. This definition also, like the one just discussed, is too general. From this point of view, the "Three R's" are vocational subject matter. All gaining of a mastery of the tools to be used in gaining knowledge and in the expression of thought would be called vocational training. Most of us would hesitate to class with vocational education such work as learning to read, write, spell, draw, solve arithmetic problems, or stand before a school and think and express thought while standing thus. Yet any of these things might—and probably would—contribute to the success of the pupil in almost any future vocation he might choose.

In my own thought, and in the published writing of many educators, the term "vocational education" is used in speaking of education directed toward the definite and single aim of preparing the pupil to become as skillful as possible in the work of some specific, already chosen vocation. Success in some one vocation is the end held in view. That the future man may be a skilled farmer, carpenter, electrician, teacher or worker in some other one line of life work, chosen before the vocational education is entered upon, is the goal to be striven for. This concept of vocational education has, at least, the merit of being fairly definite, and thus sets some limits to our discussion of vocational education.

This is a more narrow meaning than the one which the committee of seven gives to the term, but it seems to me that, if accepted, it might be a considerable step toward reaching a common ground on which to discuss the merits and demerits of this sort of education. In our general educational thought we distinguish between academic work and professional work. In my thought vocational education is of the professional rather than the academic sort. It is specific preparation for a chosen, well-defined vocation, rather than merely a study about one vocation or several.

If this be accepted as the true concept of vocational education, the vocational end would seem to be only one of several ends of education. All will agree that education should prepare one for life's duties, whatever they may be. One line of this preparation should be vocational. But the physical, the cultural, the civic, the moral, and the religious should not be neglected. Most educational theorists hold that of these several lines of training, the moral is most important as a function of the school. If, with Herbert Spencer, we look at education as a preparation for complete living, these lines of work, as well as the vocational, must be given. If, with Professor O'Shea, we look upon the function of education as the adjustment of the individual to his environment, we recognize that the environment contains all these elements, and so they must all be considered in making the adjustment. Vocational adjustment is but one of the various specific methods of adaptation of the individual to his surroundings.

Furthermore, selection of one's vocation should be in as many cases as possible delayed until at least the close of high school life. One reason for this is the fact that a broader foundation of more general knowledge should be laid as the basis for more specialized knowledge and the acquisition of skill in using it. Another fact is that most children below the age and plane of development of high school graduation are not sufficiently mature or broad in vision to choose their life work intelligently. In America we feel that it is not the province of the parent to decide as to the vocation for his son's life. The psychologic ideas as to the meaning and desirability and means of obtaining a prolonged period of infancy would seem to suggest postponing the entrance upon education for a specific vocation until at least as late in school life as the end of the high school course. I seriously doubt as to the desirability of any arrangement in public schools which compels a final decision as to life work at a much earlier time.

Another consideration of some importance in this connection is the fact that for the successful teaching of a vocation skilled and specially prepared teachers are a necessity. Such instructors it is impossible to obtain for the rural schools for the reasons that we have not now such prepared persons—we have not institutions with sufficient facilities to prepare them, and we do not pay salaries which would induce rural teachers to invest the required time and money necessary to the securing of such mental equipment. In the grades of town schools, the vocational teacher would probably be a special one, and there are strong reasons against any further application of the departmental system of instruction below the high school. Moreover, a large part of the time and energy of the child in the grades must be devoted to the gaining of a mastery of the tools of discovery, thought and expression. I am inclined to doubt the desirability and the feasibility of attempting to give specific preparation for a specific vocation below the high school in our grades or rural schools.

But it is argued that many children never reach the high school, and for these some special training for vocation should be provided. In our strong

desire to make the public school be of the greatest possible value to the child who does not go further up the educational ladder than the seventh or eighth grade, or even the end of the high school course, is there not danger that we may work an injustice to the one who can proceed to higher study? Shall we not be putting in the way of the boys and girls a strong temptation to turn into a short cut to some money-making pursuit? Will not their education be in danger of being narrow and one-sided? It is sometimes claimed that a deep study along any one line will lead a person out into a broad study of related lines of thought. This principle may be a sound working basis for post-graduate university study, but for public school work it is my feeling that the educational pyramid should be built from the bottom, and that the establishing of a broad general foundation should precede any attempt at specialization. Definite vocational work in the grades looking toward any special line of life pursuit draws in the horizon about the child's world by pushing back beyond that horizon other life pursuits. Centering one's attention on one line of life work necessarily leaves less time and energy to be devoted to other lines. If a large part of a child's time and energy be devoted to vocational work it must follow that a comparatively small part remain for attention to other lines of activity.

Thus far my paper would seem to be a plea directly against having the school bring the child into any closer contact with his industrial environment than is now the case. Such is not my desire. No one can help recognizing the fact so clearly pointed out by John Dewey in his little book on "The School and Society," that during the past century in America there have been very great changes in our industrial conditions. The numerous constructive activities of the home and the child's immediate surroundings have been transferred very largely to the distant factory far out of the field of his direct experience or observation. In some way there should be brought back into the child's life means for getting some direct, concrete information as to many industrial activities and interests. Especially is it important that he should gain a recognition of the dignity of honest labor. Some knowledge of the basic facts—not of a single vocation, but of several—should be gained. The school must be one of the agencies to help do this. At the present time the school offers but scant provision for gaining any sort of vocational or industrial knowledge or skill. It is too little correlated with real life conditions. It is this gap between the life of the school and that outside of the school which justifies, and which, in large measure, stimulated the present demand for vocational education. In some way the school must be brought closer to the life such as the pupils will live after leaving the school room. It must be so socialized that it will best aid in adjusting the child to his environment here and now, rather than to the environment of some one else at some other time in some other land. How best to do this is a question worthy of our best thought and effort. It is some such result as this which should be the end reached by this wide-spread agitation for vocational education. But how can it best be accomplished?

There is much sanity in the views of those educators who wish to combine the two methods suggested for this purpose, viz., the establishment of definite vocational schools, and the socializing of our public schools as they now exist. In North Dakota, the question of vocational education is very largely one of preparation for an agricultural life. Perhaps one consolidated or county agricultural or vocational, high school should be established and maintained at public expense in each county, offering a four year course, or better yet, a six year course, beginning at about the seventh grade. Attendance at this school would necessitate some special effort on the part of pupils or parents above that which is put forth in order to secure attendance at their local public school. It would be attended chiefly by those who had a special purpose in going there, and a special desire to go. Entering it would be a step aside from the educational ladder to the college or to any other line of university work, while those not taking this side step would continue their way along up this educational ladder in the local high school.

But in addition to these special vocational schools, there is great need of a large reorganization of the subject matter of our public schools now existing. Many text-books should be rewritten from the standpoint of modern industrial and economic and social changes. We do not want a more complex course of study. There is not room for more branches in our day's work in the schoolroom. Indeed, the over-crowding already felt has been often remarked. But more subject matter pertaining to the immediate and prospective life activities of the child could be introduced. This could be done considerably in the arithmetic, the geography—including nature study—the history, and the reading work in the rural schools, and the grades. In the reading work it would be especially easy of accomplishment through the selection of the right sort of supplementary readers.

In the high school studies, something of the same sort of correlation with life could be effected. With the county or consolidated vocational high school near, it would not be necessary to have vocational courses given in the local high schools, but, nevertheless, it would be desirable to take up many subjects from this new, industrial-social point of view. The local high school would thus gain much in power to give the student a better appreciation of his industrial environment, but it would yet retain its present function of giving the boy or girl a glance into the many lines of knowledge in order that a more intelligent choice of vocation might be made. Each of these local high schools should continue in even larger measure than at present, to contribute to the physical *me*, the economic *me*, the intellectual *me*, the social *me*, and the spiritual *me*, as Professor James calls the several parts of our personal selves. The vocational schools could exist along with these regular high schools which would continue to be, as now, one of the rounds of our educational ladder up to the higher undifferentiated educational institutions, or to the higher technical schools.

My conclusions would be that the desirable and probable outcome of our thought and discussion of vocational education will be a modification

of some of the branches taught in our public schools, along with some possible substitution of studies in a few instances, and the establishment of a small number of vocational schools to serve as models and as a basis for still further development and working out of the idea of correlating the school with life conditions which the pupils will meet after school life is ended.

VOCATIONAL EDUCATION AS THE TRUE EDUCATION FOR LEADERSHIP.

PROF. A. M. BEAN, FARGO COLLEGE.

The aim of education today is to make men. Not to train a select few—the most promising or the most profitable—for a superior place among their fellows; not to provide an occupant for the pulpit, the judge's bench or the executive chair. Rather does education now seek to give to every man his own equipment that he may within limits be his own kingdom, may properly adjudicate his own conduct, and pronounce on his work his own benediction. Not how to lead other men but how to direct one's self seems to be the trend of modern education.

But it is important to remember that the entire need of society is not satisfied by increasing the efficiency of the unit to its maximum; the cumulative effect of the mass is not the same as the sum of the units. The maximum efficiency for the entire group must be sought after, whether of a neighborhood, county, state or republic.

Now it would greatly simplify the problem if all men could see intuitively and exactly what would be to the best interests of each and the greatest good of the group of which he is one, if they could know it absolutely one and all and guided by some innate directive power move harmoniously toward the accomplishment of the same purpose. But unfortunately many men are of many minds and leaderless men are as sheep without a shepherd. And alas for the flock when the wolves appear!

Increase the efficiency of the individual as we may, or augment however much the power of the many, it will be of little gain if that efficiency be misdirected, or its results so squandered or absorbed by the political or social parasite.

If as a result of education the farms of North Dakota can be brought to their maximum of productiveness we shall have done well. If we bring it to pass that every boy of high school age has been given an opportunity to fit himself to earn a livelihood we have again done well, and if as the result the percapita wealth becomes doubled within a decade we shall have done very well. But if we stop with this what profiteth it? Have we not merely furnished another carcass for the eagles? For where the wealth is there the grafters are gathered together.

Whether for good or evil men are not wholly self-directive—they will be influenced by their circumstances, their environment, they will be led, and whether we like it or not we are going to have leaders, good ones if we want them and can get them, bad ones if they can get us.

Not political leaders merely, nor military. Men will always, as they have in the past, be thinking out beforehand many things aside from those concerned with the plying of their vocation, there will be periods of moral

and social unrest as well as political, and in one form or the other the religious need of man will be seeking an expression.

Leaders will, as they always have, force themselves to the front, be sought out, or just quietly appear. And just as they always have been so they always will be either good or bad or essentially indifferent. No matter, they are leaders and being leaders, of whatever type, they will profoundly affect the output and contribution to humanity of their principles and followers.

Merely to equip then, the individual man, to endow him with increased power, increased efficiency, is a good beginning and more than a beginning, but it is not the entire province of education. It is of vital importance that man in the mass shall have through the influence of education not merely productive but directive and determining force as well. The very increase of power and of momentum which come through education constitutes a serious menace, if that power be misapplied. A truth that is a truism perhaps; then it is needless to add that more than one flagrant abuse would be corrected, more than one corrupt political ring dissolved were it not for the direct or indirect support or even the mere passiveness of the trained, the educated, the cultured people, if you please, of the commonwealth.

And if the fact of the increase of power and the misapplication thereof being a menace is trite, is it not time to take it into account in the shaping of educational work and in the laying out of education plans? Otherwise the Frankenstein tale may become a prophecy and we may expect to find that we have reared a giant semblance of humanity of massive sinew and colossal strength but utterly soulless—given to deed uncouth and terrible.

What then is to be done? Manifestly the problem has to deal with two classes—those who lead and those who follow. With the latter this paper does not primarily deal and technically with the question of leadership only in regard to its relation with the vocational side of education.

It is fitting that a part of this session be devoted to the relationship of these two factors in our social and educational life, the leader and the man with a calling. Probably no influence has so permanently and profoundly affected the entire system of education as this recognition of the importance of vocational training in our public school system. At least none since the mighty wrench by which electives were permitted in college courses, and indeed since some colleges made their work entirely elective. Now we are admonished to make our "calling" as well as our "election" sure.

Both movements had their origin in a desire to shape the work of the school to the needs of the individual. The first was a revolt from a prescribed system of study that was essentially ecclesiastical in its origin, and therefore of doubtful utility except to produce ecclesiastical leaders, while the vocational movement is an attempt to meet in a positive way the need of the man who must earn a livelihood. Thus far the motivation of prescribed study has been away from a training for leadership rather than toward it.

The training for the ministry is avowedly a training for leadership; so is the training of the military school; so of the teachers' training school. Indirectly the training of the law school has contributed towards the preparation of many a leader. Beyond these practically all the preparation for leadership involved in vocational study is incidental rather than intentional.

What then does vocational education contribute toward leadership? The most obvious perhaps is that of personal advantage, the fact of superiority in the vocation pursued. In every walk of life training tells. The trained surgeon, the trained teacher, or the trained preacher as well as the trained artisan is preferred before his fellows. A recognition of superiority is one of the first steps to a leadership.

Again, the character of the work properly demanded in vocational education is and ought to be such that a sense of discrimination is of necessity aroused and developed. No man who does an unlimited amount of slipshod work in the first year or two of his engineering course need expect to see his diploma in the fourth. He will not be passed on simply because his company has become tiresome. His college will say to him, "We cannot afford to risk our own reputation. If we send you out as one of our graduates and your slovenly work meant disastrous loss to an employer, our school would suffer. We must make engineers worthy of the name or take down our sign. Perhaps his classmates may say "take arts." The man who responds to the requirements and brings his work to the proper degree of excellence in the course of his instruction, has gained something besides a degree or a certificate of completion. He has learned the uselessness of makeshifts, the wideness of the gulf between reality and pretense, the unmeasured difference between false and true.

In the preparation for the life-calling a confidence is one's own power is begotten through the overcoming of obstacles and the accomplishment of things that had seemed difficult. More than one boy has met his first real inspiration to a useful life from some product made with his own hands at the manual training bench. Perhaps he never became a leader, but without a confidence born of a knowledge of his strength, his leadership would be of little moment.

It is by no means the intention of this paper to decry the value of the so-called "arts" course. Far from it. In itself it has not merely cultural value and discipline and inspiration, but much of real power and of permanent influence. Nothing that is human is foreign to it. And he who would see broadly and clearly, and cares to be in touch with mankind past and present would do well to delve in the "humanities." But, alas for the goddess of culture that so many of her professed devotees should be so lame and halt that they may not descend into the pool when the angel troubles the waters.

Said Dr. Powers of the University Bureau of Travel in a private conversation recently: "No one knows so well as one who has been a professor in a great university how many there are who are simply hanging about outside the border of scholarship and never once come in contact with it," And this situation could no doubt be verified in many in-

stances. The lack of purpose, the aimlessness, natural or acquired, of a large proportion of art's students makes it in many cases more difficult for those courses to be given with the degree of seriousness they deserve. All honor to the instructor who remains true to his ideals of scholarship nor seeks the devious ways of popularity in order that his constituency may not grow less through the fear of his examinations.

On the other hand in vocational education whether of hand or brain seriousness of application is demanded with every step. And it is but a necessity of the case that a continuation of the training shall go hand in hand with a development of purpose. The youth who follows vocational training must early catch the inspiration of purposeful effort or decide that he is not fitted for that particular calling.

Thus far certain advantages have been claimed for the pursuit of vocational education in that it tends to develop certain habits of thought and certain faculties. It is believed that each one has a direct influence in leadership whether or not an occasion may arise in which that faculty will be brought into play.

It would be hard to conceive of a leadership in which the leader was not endowed with a certain degree of confidence in his own powers; had not a keen sense of discrimination as to men and things; was not recognized as of superior attainments by his fellows; and had not a purpose that would stand the test of many failures.

Furthermore the fact of superiority in one's vocation, whether or not that superiority comes through education—and education at least has for its aim to impart superiority—gives to its possessor a certain prestige that is in the main the determining factor in the choice of a leader. Leadership within a vocation is essentially dependent on efficiency in that particular vocation. Such is the leadership of the president of the firm who had made his way up through various promotions from a subordinate position, each promotion dependent on his efficiency (master mechanic). The efficiency may or may not be traced back to a specific character of education, but in any case it is the purpose of vocational education to give a vocational efficiency.

Is vocational education then, the solution of the problem? Will the definite and distinctive training for a livelihood supply what we need as a directive force and guiding influence in human society? There can be no doubt that vocational education is what we need but is it all we need?

Here too, much might be said but until there is more of a readjustment of society along vocational lines no formulation as to what is cause and what effect ought to be accepted as a finality.

It may, however, be pointed out that leadership appears in two distinct and separate characters, first, that which comes through a succession of steady gains due to a proven and growing efficiency; and, second, that which comes about through no premeditated seeking, but rather as the result of a crisis.

It is as impossible to predict now what may be the great need of our country twenty-five years hence as it is to select the youth who will be ready to meet it. For special crises there can be no long course of special

training. And the material of which will be made the leader at such a time is not easily foretold.

Possibly vocational education may lack something in that it must of necessity be included within certain circumscribed limits. The "calling" is from but one point of the compass, possibly the follower of the call has a keen eye for the immediate pathway but knows or cares little about what goes on in other parts. This of course does not apply to those institutions in which a professional course must be preceded by, or taken in conjunction with, one of broad liberal culture.

It might be pointed out too, that in the case of leaders who have arisen in great crises the specific vocational side of their training seems not always to have been of very potent influence. Lincoln was not great on account of his legal training, nor Grant on account of a consummate knowledge of military science, nor have Roosevelt's deeds been the product of any definite part of his education. A breadth of understanding, purpose, and determination would seem to have contributed to their success rather than any specialization of education.

Whatever form of education is open to the youth of our land it ought never to lack in one kind of influence, the formation of character. Some kind of ideal of ethical principle ought to obtain in all of his work, and I believe, something more than one of mere justice—though that has its value. Neither is it to be considered that a character is built by pursuing it as a study. It is not to be thought of that the future leader in some time of stress and storm shall have it said to him in the process of his education: "Go to, now let us study how to be good." But it is of vital importance that the future leaders shall be men of character else we may expect the leadership of a Tweed or a Croker rather than that of a Lincoln or a Roosevelt.

HOW TO TRAIN FOR FARM LIFE.

PROF. M. A. BRANNON.

The following paper by Prof. M. A. Brannon of the state university before the department of higher education of the North Dakota Educational association at Valley City on "How May Higher Institutions of Learning Train for Farm Life, Rather Than Away From It?" was one of the most interesting on the program. Professor Brannon said:

This question is an interrogation and an indictment. In order to deal intelligently with the question and the implied indictment it became necessary to secure direct information from original sources. The following questions were addressed to fifty students equally distributed among the four academic classes at the university:

- (1) Why did you leave the farm?
- (2) Do you expect to engage in farming after you complete your university course? Why?
- (3) What conditions in farm life should be improved in order to make the occupation attractive to you? How?
- (4) How can the university aid in training students of initiative for farm life?

Essentially the same questions were submitted to the heads of the higher institutions of learning in this state, to several educated and progressive farmers, to the United States Secretary of Agriculture, Mr. Wilson, and to the chairman of the national committee on country life, Mr. Bailey.

The answers to the first question, "Why did you leave the farm?" proved to be very effective denials of the implied indictment that higher institutions of learning were training away from farm life. The reasons assigned for leaving the farm indicated a well established purpose on the part of each respondent to leave the farm for all time when he or she entered the university. In the light of such evidence, the indictment is proven false and the simplified subject may be stated, "How May Higher Institutions of Learning Train For Farm Life?"

An examination of the answers returned furnishes interesting information regarding the actual conditions existing on the farms in North Dakota. An actual statement of conditions is not made in every case, but the declaration of ideals entertained by the students coming from the farms leads to a clearer conception of the conditions existing in their rural homes than might be gained from a statement of concrete facts.

The following answers are given in the order of their numerical importance?

- To obtain an education.
- To secure greater financial returns.
- To seek a higher and more honorable profession.
- To move among cultured men.

Because farming offers no future to an educated man.

Because farming offers no prospect for fame.

To escape drudgery.

To enjoy social life.

Because parents moved to town.

Because father wants his son to be a professional man and not follow the humdrum life of the farmer.

Because two-thirds of the year there is practically nothing to do.

Because land is being robbed and overrun with weeds.

Because he wished to secure more liberty and enjoyment.

Because he preferred mental to physical labor.

Because farm life lacked amusement and was too quiet.

Subsequent to taking this census of students in North Dakota it was learned that Professor Bailey, of Cornell, had taken a similar but larger census at Cornell university. He received replies from 155 students and placed their answers in four groups:

First, those who were influenced by financial reward.

Second, those who left the farm because of the burdens of physical labor.

Third, those who wished to improve the social and intellectual ideals.

Fourth, those who were handicapped in miscellaneous ways.

A comparison of the answers from the students in the University of North Dakota and Cornell university leads to the conclusion that the eastern and western students were influenced practically by the same motives, and had been led to the same definite determination to abandon the farm before they had come under the actual influence of the institution which they entered.

The answers to the second question: "Do you expect to return to the farm after you have completed the university course? Why?" elicited two sets of answers. The answers in the first group are from students who do not expect to return to the farm and those in the second group are from those who intend to return to the farm. The answers are given in the order of their numerical importance, though several of the latter reasons are assigned by a single respondent:

Specialized for other work.

Not attractive, especially for a girl.

Prefer mental to physical work.

Farming does not pay enough money.

Farming is too prosy. It lacks amusements and opportunities for social life.

Social standards in rural communities are inferior to those of town.

Farmers have no opportunity to travel.

Extreme hard work and uncongenial neighbors.

Farming is too humble a profession.

Education is regarded as a menace to a good farmer.

Ashamed to go back to farming and settle down as a farmer.

Because education in higher institutions of learning does not fit for farm life.

Group two:

Life on the farm is sane, moderate, healthful, varied and reasonably remunerative.

More freedom and the trained mind is offered a field of wider interest than in the city.

Because farming requires brains and education.

Because business is too intense in the city.

Physical conditions more satisfactory on the farm than in town.

Farmers are usually reasonably successful financially, whereas the majority of business men fail.

University education has given entirely different and higher ideals of farming than those possessed when the student entered the university.

As might be expected from any company of witnesses the two groups of answers cited above furnish some rather striking contradictions. One of the most interesting facts developed by these answers is that showing that higher education is an institution, with no agricultural college in its organization, exercising a powerful influence in creating ideals favorable to the return of educated men and women to farm life.

The answers to the third question, "What conditions in farm life should be improved in order to make the occupation attractive to you? How?" received the following replies:

Good roads should be built through the country.

General telephone connections should be established.

Rural mail routes extended and the parcel post system inaugurated.

Rural schools should be improved.

More attention given to the social and religious life.

Higher grade of labor should be secured.

Farming should be made more profitable.

Drudgery should be reduced by the use of more machinery.

Farming should be intensified and diversified.

Farm buildings should be improved and made more artistic.

Standards of life should be changed so that everything would not be measured in grain and cattle.

Shorter hours for labor with the hands and longer hours for work with the brain.

The social conditions should be elevated.

The fourth question, "How can the university aid in training students of initiative for farm life?" received the following answers:

Offer a good cultural as well as practical education.

Use every means to develop character.

Endeavor to uplift and dignify the ideals of farm life by means of convocation addresses, class room work and general lectures.

Offer courses in manual training and teach students to work with the hands as well as with the brain.

Join the agricultural college with the university on the same campus. Let each work for the other.

Offer courses in chemistry and physics of the soil and applied courses of zoology, botany and geology, and engineering.

Courses in business management of the farm; courses in economics of production.

Courses in the beautification of rural home grounds, etc.

Answers from the heads of institutions of learning in North Dakota and from farmers and others with whom correspondence was had, closely agreed with responses received from the student body. The concensus of opinion might be summarized in the following manner: There is much that is faulty in rural conditions, notably uncongenial surroundings, lack of social and educational advantages, a general hopelessness among many farmers of improving local conditions, and the common ambition to move out and mingle with the more active life. The search for the underlying cause of these difficulties leads to the conclusion that there are two primary difficulties at the source of the sociological problems. Ideals concerning farm life as well as unfavorable conditions must be changed if there is to be any considerable decrease in the drift from country to town. We may deprecate the low ideals of farm life, entertained by the so-called people of culture and refinement, but do not have nearly as injurious an effect in driving young people away from the farm as does the possession of low, undignified ideals by the farmers themselves. Undoubtedly much can be done by creating proper ideals in the minds of those who have left the farm, get nearer the land, which is anchored in the farm homes. Much energy will be economized in the endeavor to train for farm life when educators grasp the idea that adults are in greater need, even than the children, of acquiring correct ideals. Unquestionably it is because of the low, impoverished and undignified ideals obtaining in so many rural homes that the youth who have been grown, not reared, in the country trek toward the congested centers of society.

Mr. S. A. Knapp, director of the farmers' co-operative demonstration division of the department of agriculture, from observation and experience speaks as follows:

"The teaching of ideals on the farm, in the work shops, and in the homes of toil is most valuable and significant of all the varied lines of educational work, because it has in the past been most neglected. It is the most valuable because the lessons are immediately practicable and become at once an investment for human betterment; while much of the teaching of youth is lost by indirection or lack of application. Its value is enhanced because it goes directly to the character of adult society and molds the rising generation. * * * It will be difficult, if not impossible, to fix as national characteristics those high standards of excellence, worthy of a great people, unless education and training be taken to the adult population as well as to the youth. However excellent and complete may be the instruction of youth in the schools, parental authority and environment, if of a lower level, will ultimately determine the standards of the future. The education of the adult should keep step with that for children and youth so that there may be the material prosperity and intellectual growth co-ordinate with developing childhood under the guidance of wise instructors to the end that the natural leadership of the parent may continue unbroken.

Manifestly the higher institutions of learning can perform this service of reaching the adults directly through one avenue only and that is through correspondence and university extension work, one of the greatest, if not the greatest arm of an institution. This is a field which progressive educators appreciate and are beginning to cultivate. It is a work which would justify liberal appropriations by both state and federal governments. The organization and training of a large army of extension workers who would carry the results and the inspiration of culture and modern scientific findings to the homes is no empty dream. In the desolate rural homes of millions of American farmers are "untrained or mistrained children, and dull, plodding men." For such as these the extension workers must be multiplied until the call to the higher life is brought to the very threshold of thousands of North Dakota farmers.

A boasted motto of our land is "the common school, the hope of our country." A great work, indeed, has the common school performed. By reason of its intimate relation to the home life of the community, it is very close to the load and may be used more effectively than in the past for establishing correct and high ideals of rural life, and pointing the way to the correction of many unfortunate rural conditions. To perform this function adequately it will be necessary that teachers in the elementary schools be trained in agriculture, domestic science and manual training. Obviously this is the great sphere of normal schools, and any other schools whose efforts are given to training teachers for service in the elementary schools. This may be classed as indirect effort on the part of the higher institutions of learning to solve this problem of training for farm life.

Another point of indirect attack will be through co-operation with high schools such as are contemplated in the Davis bill. The relationship of such schools is clearly indicated in the following words from President Roosevelt: "It is not my place to speak of the details of such a bill as the Davis bill, but in a general way I feel that the nation should be making appropriations, put a premium upon industrial, and especially agricultural, training in the state schools; the states themselves being required in these schools to contribute what is necessary in the ordinary training and the expenditures for the national government to be under supervision of the department of agriculture.

"The teachers must be trained, or their teaching will not be adequate, and these teachers must then give vocational training to the scholars in the ordinary schools. The nation would simply co-operate with the state or city or town, and what it thus gives would be applied to industrial, technical and agricultural trainings.

"We have to deal now and we will have to deal in the future with a nation of families on the land, and our system of public education should be so broadened in its scope as to include not merely the traditional cultural studies, excellent and indispensable in their way, but also instructions relative to the farm, the trades and the home."

The preparation of teachers in agriculture, domestic science, and manual training should be as thorough and extensive as that of engineers, lawyers,

and physicians. The demand for teachers thus prepared will far surpass at an early date the supply afforded by agricultural colleges, and there is every reason, therefore, why every teachers' college in the United States should offer thorough and extensive courses in these subjects.

The scarcity of skilled labor on the farms together with abnormally high prices demanded by inefficient laborers is sure to have one beneficent effect. It will require the farmer to make larger use of machinery and thus enable one man to perform the work of several. This implies that the farmer and the mechanic must be very closely related, so much so that every successful farmer must necessarily have his blacksmith shop and his tools for repairing farm machinery under his own management. The day is not far distant when the milking machine, the gasoline engine and allied appliances, will minimize the drudgery both in and out of doors, and thus relieve the farmer of many of the most disagreeable features of rural life. Then chores, instead of being a disagreeable handicap, will become a real pleasure because they will be performed efficiently and quickly by machine rather than by hand labor. In this connection higher institutions of learning will find favorable opportunity for giving courses in shop work, machine construction and operation directly related to agriculture as well as engineering demands.

Mr. Burbank has made many notable contributions to our generation, but perhaps we are most indebted to him, not for his seedless apples, shell-less walnuts, spineless cactuses, etc., but rather for the great lesson which he has taught us in breeding plants. One of the most classical experiments based upon principles followed by Burbank, is the development of a new breed of corn by the Illinois experiment station. Another is the notable work of Professor Hanson of the Agricultural College of South Dakota, who has made remarkable advance in the breeding of plants that will endure the rigors of the severe northern climate. These lessons in plant selection and breeding appeal directly to the progressive farmer everywhere. The higher institutions of learning through their experimental studies with plants should be able to make helpful contributions to the training of those who have inclinations toward the farm.

In the study of prairie conditions, such as we have in North Dakota, higher institutions of learning should become powerful agents in creating a sentiment for groves and forests, giving thorough and practical courses in the study of trees, and demonstrating through their own home-grown groves what may be done along the road sides and on every quarter section of land. When actual work in selecting and cultivating trees, which may yield net returns of five to twenty dollars an acre, on a twenty year investment, is carried on by higher institutions of learning, opportunity will be afforded teachers, who are preparing for work in elementary and secondary schools to gain an acquaintance and a practical knowledge of tree growing. With people thus prepared Arbor day will become an institution whose monument in North Dakota will be something beside dried up tooth picks, which occasionally ornament the grounds of the rural school.

It is believed through these three agencies, university extension, preparation of teachers for elementary schools, and preparation of teachers

for secondary schools, the higher institutions of learning may aid in training for a true life on the farm. This training, it must be remembered, will be directed toward the development of proper ideals respecting country life and toward the improvement of unfavorable conditions, which absolutely prevent rural progress in many communities at present.

Viewed from almost any angle, this subject is one of colossal proportions. There is no business in all the world that is so important as agriculture. There is none that begins to compare with this in the amount of invested capital, about thirty billions of dollars in the United States; none which can compare with it in total production of wealth, which was about seven and one-half billions of dollars in 1908. There is no business which is so hampered by traditions and weighted by such an army of ignorant employes. The problem is further complicated by the fact that over thirty-five per cent of the farmers in the United States in 1900 were tenants. This means much careless and indifferent farming, and consequently more drifting away from the farm to city life on the part of the boys and girls, who feel that they can sell their services for higher wages. In the light of these statistics, there is a great field for the economist and the sociologist who may develop sane and wise economics of consumption of farm resources. If these departments in our higher institutions of learning can devise systems of taxation and systems of credit, which will relieve the toiler on the farm from the burdens of taxation on the one hand and the high rates of interest on the other, they will make a great contribution to the training for farm life.

It should be understood that this paper is not a plea for converting the higher institutions of learning into agricultural colleges. It is a simple effort to show how the higher institutions of learning throughout this state, may make use of their present equipment for benefiting a class of citizens who contribute largely to the maintenance of every state institution. It is a frank acknowledgment that one of the most difficult questions in education has been long neglected by this western people. The intention has been to point out facts concerning some of the unfavorable and some of the favorable factors in rural life; at the same time show how we might get nearer the load through the agencies of extensive work and preparation of teachers, who may carry inspiration and knowledge of rural affairs into successful teaching in the elementary and high schools; and also how the department of economics, sociology, biology, engineering and others may be utilized for practical service in agricultural as well as in other technical activities. When the farm and the school become thus allied we feel that the question of this paper will have been successfully answered. Under this alliance we should realize a social and economic condition in the rural community which would be utopian. In the language of one of my respondents, "then the farmer will have become greater than his vocation, and farm life will have become attractive to the best class of citizens." Nevertheless, then, as now, young people of initiative will leave the farm, occasionally, as they now leave every profession and activity, for service in other spheres of life. But they will sacrifice much in so doing, because they will leave sanitary, architecturally constructed homes of culture surrounded by the quiet of country life.

COLLEGE RESPONSIBILITY IN DEVELOPING COURSES LOOKING TOWARD IMPROVED RURAL SOCIAL CONDITIONS.

PROF. C. B. WALDRON, AGRICULTURAL COLLEGE.

It is an interesting query as to when and how the American college as an institution became naturalized. In the beginning it was an exotic, planted to conserve and perpetuate certain more or less worthy educational traditions and customs. It did not arise from existing conditions as did the common schools. Our political, educational and religious institutions and creeds are rarely the normal and natural embodiment of our own enlightened good sense. Custom and prejudice forever bind us.

Though these creeds were formulated under conditions different and generally inferior to our own, yet because of our prejudice and inertia we fail to bring to our own time and place the things that are justly due. Until very recent years the American College has not been a very great social force. Except within the memory of our own generation college men generally lived up to their reputation of being harmless and dignified, rather than creative and aggressive.

In the great onward march of social and economic events the higher institutions of learning have not played a very conspicuous part. The fact that many college bred men have distinguished themselves does not weaken the contention. In most instances it would be difficult to clearly associate their prominence with what their colleges may have supplied them.

That all this is rapidly changing is due primarily to one great cause, namely, the development of natural science and its introduction into college courses.

We are as yet too close to this great movement to comprehend its meaning and extent. It is far more vast and sweeping than any movement of like kind in the history of the race, and in its operation has done more to fix the status of the college and the college men in society than have all other causes combined. The reason for this is clear. The physical and biological sciences deal with matters of prime concern to all classes of people. It was but half a century ago that the researches of Darwin, Huxley, Spencer and Wallace placed the science of living things upon a basis such as to make it of vital concern to all people. The sciences of physics and chemistry had already been developed to the extent and along the lines in which they were of the greatest importance to the producing classes. Even at that they were not generally considered as essential components in a college curriculum till near the middle of the last century. The time came, however, as come it must, when these and the biological sciences were not only added to our college courses but became in large measure the most vital and essential element in them.

At the same time and in the same measure the college was no more an exotic—it had become indiginous. At the same time and by the same means it also became democratic. A new trend, if not a wholly new meaning, was given to educational affairs.

Whereas, the ideal of an education in the olden time was that it enabled one to escape from work, its aim was now this—to teach one to work well.

To teach one to work well—that is now recognized as the one rational aim of general education.

To bring man into a profitable and congenial relationship with his vocation should be the one serious aim of society. The educational agencies are the ones that must be chiefly depended upon to bring this about.

The idea that the industrial classes, those who create and sustain, are also entitled to education and enlightenment was new fifty years ago, but only as this idea materialized in such college courses as we now find. has the college become a necessary and vital institution in our civilization. Social foundations have been infinitely broadened and strengthened by this liberalizing and democratizing element in education. This condition is so rational and altogether profitable that we cannot now comprehend how it can ever cease to be.

To keep in living touch with the community; to understand and develop the aims and aspirations of common men; to uplift and inspire those who bear the heat and burden of the day; to sweeten and dignify their lives, that the greatest number may enjoy the greatest good; these are the things to which we must attain and these we must not forsake.

All social institutions should accomplish something of this; all colleges must if they would justify their existence. This is something more than a responsibility resting upon the colleges, at least upon all publicly supported colleges; it is their sacred and imperative duty, and, broadly speaking, it can be discharged in but one manner and in one direction. There may be some question as to the best means of accomplishing this; there can be none as to the economic and moral necessity of so doing.

In the first place the colleges that are in character an organic element of rural life, should be so closely related to rural affairs and institutions that their part in these shall be direct and positive. In our own state for instance the Agricultural College has no official relation to any of the rural institutions. The one institution that finally will exert more direct influence upon bettering rural social conditions than all things else combined is the rural school. That a closer relationship than now exists between the Agricultural College and the rural schools would be of advantage to the latter may well be taken for granted. That rural conditions would likewise be improved would seem to be self evident.

Just how this closer relationship could be brought about is a matter requiring much thought as to plan and detail. One of the most direct and positive of these means would be to secure teachers having an education particularly suited for rural school conditions. In Nova Scotia all teachers graduating from the school of agriculture are granted an extra compensation from funds for that purpose provided by the province. This in schools of a certain kind amount to \$300 and in all cases to \$150 or more per year. The plan is reported to be an excellent one in practice.

When the time comes that we are really in earnest in the matter of improving our rural schools and thereby our rural conditions we may inaugurate a similar plan.

The granting of state certificates to college graduates would be but another step in the same direction. The responsibility of the college in bringing about an improvement in rural social conditions would be much greater than it now is if it could be brought into direct official relationship to the rural schools. A college absolutely cut off from any authoritative participation in the affairs of a community, cannot be held highly accountable for conditions, social, educational or otherwise. It is the tendency of the modern American college to gladly assume any reasonable responsibility with which the people see fit to invest it. Besides this officially vested authority colleges can and should use their influence in a general way to help solve any of the problems that may confront society.

The problem of the betterment of rural social conditions has been brought prominently forward of late, and it is natural that all political and social institutions should direct some of their energies in this direction. It is natural that the college should touch this question from the educational side and for that reason a closer relationship must be obtained between the college and the forces and factors involved in rural education.

Speaking for the Agricultural College I may say that it will be glad to enter upon a fuller and more active participation in rural educational affairs at any time. It has sought for this privilege for many years but has found opposition on the ground that its work is technical and not educational, hence it should have no standing in the educational field. This is a remnant of the idea that education is one thing and life another. It is because of this persistent attitude on the part of educators that education itself has been held in a sort of mild derision, expressed in the saying that "he who can does, he who can't teaches."

The idea of an education expressed in terms of daily life was new fifty years ago. Not only new but so palpably grotesque and absurd that those colleges which were the living exponents of this weird notion were regarded by most educators as the material embodiment of the best practical joke ever designed to amuse superior people. The mirth then provoked has largely subsided. Forces were developing which resistlessly carried forward that idea till now the stone which the builders rejected has become the head of the corner.

Just how far a college through any of its representatives should assume the responsibility of breaking into a teacher's institute or summer school to forcibly impose upon the attendant teachers matters relating directly to rural improvement is so fine a point that I leave it to the professional psychologists for decision. That an agricultural college could be an added source of benefit to the state by suggestions it might render to rural teachers, would seem to be at least reasonable. It was my pleasure to attend last season an institute and summer school in which practically all in attendance were rural school teachers. If there was anything to indicate that that summer school was for the benefit of those teaching in the farming districts of North Dakota, rather than in a mining or seaport

town or the heart of a great city, I failed to detect it. In not the remotest manner could the inference be made that the teachers present were seeking preparation for the responsible duty of fitting young people for a certain exacting profession known as agriculture. It may be objected that the mission of the common schools is not professional and that teachers in these schools are not fit pupils for agriculture or any other calling. This seems plausible to a degree, and yet the fact remains that the great majority of pupils in the rural schools of North Dakota will remain on the farm, and that the greater number of these will obtain no education beyond the rural school.

You may object to making the schools professional and yet it is important that the schools get into intelligent and useful relationship to the communities in which they exist. They must be quickened by the same spirit and moved by the same impulses that exist in the school region, differing only in this, that they lead and direct these impulses. The school may and should be in advance of the thought and practice of a community, but it should be of the same kind and character. It should live the same life, see and work with the same things and seek the same ends. The lines of its activity may be much the same as now, but differently inspired and directed. That is to say, the schools should seek out what is stimulating and interesting in those vocations that are likely to be followed by the mass of the pupils, and direct their education in a large measure along those lines.

The few who follow other lines will not be defrauded. Their education will doubtless be quite as stimulating and useful as they now obtain, while there is the further consideration their needs are taken care of in the special schools already provided. All this means that our opportunity lies in bringing to men's daily task an enlightenment and assistance that will make their work in a sense a pleasure and means to further enlightenment, rather than simple drudgery.

Agricultural colleges and all others that conceive in their mission to improve the general conditions of men are naturally seeking for means to accomplish this end. They cannot accomplish much by simply adjusting their own courses with this purpose in view. They can and do offer subjects that deal directly with rural life, while many of the courses as a whole are arranged with this in mind. The responsibility of the college created and endowed for this very purpose is of course assumed and needs no elucidation. All publicly endowed educational institutions have a duty to perform to the society that support them, that they have doubtless at times overlooked. The average tax payer is patient and long suffering and not inclined to expect in kind a return for all of the individual dollars that he donates for the supposed public good.

At the same time where he demands that the tangible return shall bear some ratio to the amount expended, even though the expenditure be made in the sacred and unassailable name of education, he is not to be cried down as a philistine.

There are many things valuable and helpful enough to the individual that we do not think of charging to the public account and the cause of

education will be promoted and not retarded if she be required to return to society a real and direct value for benefit received. It is an honorable privilege that every college should be glad to exercise in all possible ways. University extension, lectures, bulletins, farmers reading courses, assistance in organizing farmers' clubs and exhibitions, aid in school work, official and otherwise, these are some of the many forms that college activity may take in improving rural social conditions.

Let it be considered by college a fundamental principle that any form of activity which leads to a greater intelligence and to a higher social and economic position of the producing classes, does more to place education upon an enduring and honorable basis than will a world of effort along certain ancient and classic lines.

With our lips have some of us given allegiance to the principle of democracy in education, while we have given our support to a system which benefits the few while the many are forgotten.

Even though our sense of justice permitted this our judgment should make us wiser. Great educational ideals and accomplishments are possible only in communities sufficiently enlightened to demand and appreciate them. To the same extent that our people are prosperous, progressive and intelligent our colleges and universities can attain to worth and greatness. That this can be accomplished unless our one leading occupation, our one source of wealth and power, is entrusted largely to men and women of intelligence and education is of course impossible. The best brains and energy of the community must be devoted in a large measure to the one profession through which we may ever hope to gain distinction.

The great physical basis that underlies and supports all our forms of activity must be kept in a state of health and vigor if we would make progress in any line. The colleges with their superior advantages which the people have seen fit to grant must aid in this work or shirk their part. That those colleges able and willing to do so should be given every encouragement and not hindered by unjust or faulty laws would seem to require no argument. That other colleges in other states are seeking out the means to improve social conditions, have indeed already accomplished much, is but an evidence of the direction in which higher educational forces are acting. Every consideration of justice and wisdom demands that in an earnest and definite manner we devote ourselves to this end. Greater than legislatures or churches or colleges are the people, the earnest striving masses of common people that create the wealth and carry forth the activities by which alone the race survives.

That we can better engage our talents than in their behalf is a presumption that the spirit of our country and time should not tolerate. The superiority that education confers should seek the means for some worthy expression and in no way can this be more simply and directly accomplished than in systematic and positive effort toward raising the average social standard. The gap now existing between education and industry should be closed by giving our industrial institutions free rein in the field of education and by developing the industrial element in all our educational institutions.

THE RURALIZED COLLEGE.

PROF. WALLACE STEARNS, WESLEY COLLEGE.

Even the casual observer of rural conditions cannot fail to sense the opportunity and responsibility of the constructive agencies of society. The agricultural class is the basis of the social order and the weighing of data only opens our eyes wider to the immensity and to the dire urgency of the problem before us. Of 29,287,070 engaged in gainful pursuits, according to the last census, 10,438,219 were engaged in agriculture, or 35.6 per cent of the entire number. In the same year farm products totaled \$3,764,177,706, and farm land with improvements, including stock and implements, aggregated \$20,514,001,838, and for the current year farm products total \$7,778,000,000 and farm values represent \$30,000,000,000. The total investment in agriculture, then, is more than twice that in manufacturing and the farm products aggregate nearly one-half of all the iron and steel output of the country, and four times the mining products. With six years earnings the farmer could buy all the railroads in the United States.

The increasing power and influence of this factor in our national life is equally apparent. Improved farm acreage increased from 110,000,000 acres in 1850 to 415,000,000 acres in 1900, or in other words, farm valuation advanced from three and one-half billions to sixteen and one-half billion dollars in fifty years. In the same time live stock quadrupled, and the staple crops (wheat, oats, corn and cotton) advanced 350 per cent to 550 per cent. Indeed though we number only 6 per cent of the race, we raise one-fifth of the wheat of the world, one-half of the cotton, and three-fourths of the corn. If the farmer were to sell out today he would have to take notes for more than one-half the value.

Nor is the farmer insensible of comfort. Electric roads, automobiles, improved machinery, the furnishings and appointments of a modern home, free mail delivery, daily newspapers, magazines, some seven hundred trade journals, lyceums, lectures, concerts and operas—all render the farmer the true aristocrat of the country. The farmer is learning wisdom. In fifty years the average farm has dropped from 200 acres to 150; the number of farms has increased from one and a half millions to five and three-quarter millions.

Conditions, however, are still deplorable. The death-rate of the city exceeds that of the country in such diseases as measles, scarlet fever, diphtheria, whooping cough and consumption, but in influenza, malarial and typhoid fevers the city makes the better showing. That is, the country suffers from such diseases as thrive on poor sanitary conditions and on the lack of cleanliness. Here and there stretches of thrifty country appear, but shabby schoolhouses and tumble-down churches; correspondingly forlorn teachers and preachers; ill-kempt farms, buildings, and fences

bespeak the fact that despite improvements the farmer has not yet fully come into his own.

The country districts today are in a state of transition. Improved machinery, improved methods and modern conveniences have opened the farmer's eyes to possibilities and he is becoming impatient of any and all that would stand in his way. This rural renaissance is one of the characteristics of the present century. On the other hand the country is being filled up with new nationalities. Twenty-five years ago eighty-three per cent of our immigrants came from northern and western Europe, people who had not known serfdom, resourceful, enterprising, independent, and readily mixing in with American ways. Today almost the same proportion come from southern Europe and from western Asia, helpless, and for a time social driftwood. These heterogeneous populations are in a handicap race; there is no unity, no harmony. Caste is springing up in rural districts. The newcomers, many of them, have strange, outlandish notions of life, often they have no religion, no faith, no regard for the Sabbath or for any other institution the community may hold in reverence. The moral equation of the community is lowered. The scale of living is degraded. A recent journal, showing illustrations of beautiful stretches of country, goes on to state, "The above farms can be bought cheap and made into beautiful homes, provided one is not particular about one's neighbors.

The above becomes even more striking when we realize the significance of rural conditions. A labor leader recently set himself to deliver a labor vote aggregating 2,000,000. Yet in the country are 10,000,000, whose vote, ignorant and prejudiced or intelligent and unbiased, must decide our political and social welfare. The farmer is the balance wheel of the republic, the one factor in our civilization that can offset the unwholesome life of the cities, which if it were not for the constant stream settling from the country, would degenerate and eventually become depopulated. The cities devour life; they do not perpetuate it.

Accepting conditions as they are, the place for social regeneration is in the country. Men fight fire, not around the edges but where it is the heaviest, in the heart of the blaze. Two great agencies among others can minister to the solution of the problem, religion and education, the church and the school. It is our present task to consider the college as one factor in this work of social regeneration in the rural districts. The fact is that the college has too much ignored this large class of possible patrons. Somehow there grew up in the past years a standard college course whose back-bone comprised Greek, Latin and Mathematics. The object of education was culture, and we have yet to show that the old selection was so bad after all. Then came a swarm of electives more or less loosely hooked on to the curriculum. These extras later blossomed out into professional departments. Colleges became universities; professional schools, hundreds of miles in some cases, looking for a charter under which to operate, sought and found a haven. Engineering annexes are now being added and our average college is about as homogeneous as Nebuchadnezzar's image.

The college of today breeds discontent, and the country boy or girl is inspired with a longing to escape the bars of a narrow existence, and to launch out into a "brilliant career." The main thing is to get away from the farm. It is our task now to set the pyramid back on its base, to bring society to the right view point relative to rural life. Young folk must learn that life on the farm is not necessarily degrading and that it is better at least than the gilded life of the city at a dollar fifty a day, or behind the counter at five dollars a week. All the modern researches, too, and experiments in scientific agriculture are making the profession more difficult rather than easier. There is need, then, of a better educated and in every way superior class of people in the rural districts. The passing of the public domain, the increase of population, and the urgent need of conservation and wise use of natural resources demand that the farmer vie with the best and that he have all the preparation and assistance that training can give him. Farming has become agriculture, and the farmer has become a modern professional man.

This ideal ruralized college must still teach the humanities. The farmer is a man, his wife a woman; they are not machines or drudges. They live in a world of beauty. The earth beneath their feet teems with life; landscape, sunrise, sunset spread vistas of color that defy the skill of the artist. Every nook and corner of the world is full of beauty and knowledge. The farmer of all men has the best opportunity to see and to hear and to inquire and to know. It is criminal for a farmer to be ignorant or superstitious. The first duty of the college, then, is to excite the student's curiosity, to arouse within him a desire for the very best things of life. Art, literature, a flavor of philosophy, a taste of languages are none too good for the ideal farmer. Political economy and history are invaluable, for the farmer of all men must be a well-informed citizen, of judicial mind and clear vision. The young farmer should also know that poets have found the richest food for their thoughts, and sages for their reasonings amid the life of the country. A man does not need to be a fool, an ignoramus or a clown to be a farmer. He can work while he thinks and while he labors he can revel in the beauty about him. It is no wonder that country boys go wrong in the city. Their minds are even more barren than their scantily furnished hall-bedrooms, and with no resources within themselves they drift out into the glare of the city to find release from their lonely selves.

And here another field opens out. There is a duty not only to the few who get away to college, but to those who are compelled to remain at home. College extension is an urgent call to the college for service. A thousand themes, for example, are made luminous with a stereopticon, and the legion of cheap theaters with their picture shows are evidence of the efficacy of the plan. The government prepares and sends out each year information of one kind or another costing millions of dollars. Not one man in a thousand knows its value or realizes what it costs. For instance, a stereopticon lecture on weather maps and the weather bureau, our inter-waterway commerce, the common herbs and their uses, the evil consequences of unsanitary conditions, on birds, forests and like subjects

without number afford boundless opportunity. A live college could thus arouse the communities about it and thus increase its own usefulness beyond possible calculation. A college, let it be borne in mind, does not exist for the members of the faculty but for the community. Our universities are not great receptacles for books, specimens, curators, casts, et cetera, but great organisms, whose purpose is to impart wisdom, intelligence and culture to the men and women of the century.

A strong feature in our proposed college would be the sciences. The farmers of the country, for example, have wasted money enough on worthless fertilizers to buy their farms, and they look over their unprofitable acres in abject helplessness. Every farmer should know chemistry. He should know what elements go to make certain crops and he should know how to find out what his own land lacks. It is as easy to the wise man as a simple problem in addition. Likewise geology would enable the farmer to know of the subsoils, of the nature of earths, and he would be spared the painful experience of boring for oil or gas in a granite rock or for digging for coal in a bed of devonian sandstone. Botany and zoology also, and meteorology are not handicaps to successful agriculture.

The organization of lecture bureaus, entertainment courses, institutes, lecture discussions and other enterprises of similar character could well become part of a college's work. In the days of the district school the long winter evenings were devoted to debates. Many an orator and statesman points back with pride to those experiences. However much one may know, one is as a bell without a tongue unless endowed with the gift of persuasive speech. The restoration of the lyceum in our rural communities is today an imperative need.

There are a number of special features that ought to be adopted by our colleges, features, which if incorporated in our rural life will add materially to our civic welfare. Landscape gardening ought to be taught. The college grounds could become the laboratory and such a love for beauty inculcated in the minds of the youth that the countryside within a generation could be made a bower of beauty. The American people are not afraid to work, and if the country home be transformed from a barrack into an abode where beauty and peace reign; if the life of the farm be made livable; if by means now open to all and practical for all, present drudgery be turned into professional work, there will be fewer fathers viewing with sadness the acres they have wrought to win, but now, alas, to be sold because the children hate the farm. There is need of instruction in the homely arts. Shop work, including elementary wood and ironwork; domestic science with care for every department of the home life, construction, decoration and maintenance; horticulture and floriculture, and kindred ranches are feasible and can be taught on a practical basis and put within the reach of all. Put one such graduate, trained, level-headed, patient and persevering in every community and the so-called social problem is far on the way toward solution. A course in elementary agriculture, based on some such line as the "Rural Science Series," including among her numbers such topics as "The Soil," "The Principles of Agriculture,"

"Rural Weath and Welfare," "The Farmstead," and "How to Choose a Farm," would be invaluable as a discipline and within the reach of every school, even of the public schools. The fact that the leading book companies of the country print these volumes and the further fact that some of them have reached even the twelfth edition, argue that there is a growing demand and an avenue of service for our educational institutions. One other subject deserves special mention. Forestry is concerned with one of the most beautiful subjects that could engage our attention and is of increasing importance because of our present economic conditions. Forests are being wantonly destroyed, trees that have for centuries been monarchs of the woods are now for some reason dying off, and timber is becoming scarce. It will be necessary for us if we are to save our farms, if we are to preserve our climate, if we are to have any landscape at all, to look well to the welfare of this most important factor in our civilization. Without wood and water the country is a howling waste.

If our colleges are to lead, as they ought, they must divine the needs of the time. If they are to become—in many instances simply continue to be—asylums, let us change their titles. Colleges exist for the people and for their needs and to inspire them with the right ideals. We must bear in mind that one-half of the population of the country live in the rural districts and that these people are equally entitled to an education fitted to their needs.

The agricultural colleges have no copyright or patent or peculiar monopoly of this great field. As public agencies owned by all they are bound to minister to their utmost ability. Nor can we lay the burden at the doors of the state university. The amelioration of society is the solemn obligation of all, and the schools exist for the people, for their actual needs, and as a means to their progress.

WHAT NORMAL SCHOOLS SHOULD DO TO TRAIN TEACHERS
TO TEACH VOCATIONAL SUBJECTS IN THE ELEMEN-
TARY SCHOOLS. SHOULD ANY OTHER STATE
INSTITUTION UNDERTAKE TO TRAIN FOR
THE SAME PURPOSE.

HOWARD F. BUTTERFIELD.

The topic I take to mean Manual Training, Domestic Science, Domestic Art and Agriculture. The first three are similar in the benefits to be derived and are usually considered under the head of Manual Training. The reasons and arguments that can be brought up in favor of the teaching of them are numerous, and most of them point to the fact that they are a great aid toward the aim of the scheme of general education.

First we should consider some of the points of interest and value that are to be gained by the study of these subjects, and the benefits the pupils may be expected to derive from them.

Manual training is an extension of the means hitherto employed for the education of the young; it seeks to utilize a child's innate desire of activity to the developing of its bodily and mental powers by systematic exercise.

The condition that a child shall itself be active, that by observation and experiment it shall contribute to its own education, is one of the important points and shows a striking contrast with the pedagogy, which works from without rather than from within. It is through this self activity that the hand is skilled, the eye trained to see aright, the sense of form and color developed, and self reliance, accuracy, carefulness, patience, perseverance, the faculty of attention and power of concentration are developed, and the necessity for the same is made perfectly clear to the child.

It is a well known natural law that the individual follows the same stages of development as the stock to which he belongs. In every series of forms the highest form must repeat and contain within it all the others. The story of the individual development is a repetition of the history of the race; or we would say the spiritual development of cultural man is a repetition of the history of culture.

Work has been the most important means of educating humanity; through it we have gathered the wide experience which has enabled us to reach the high standard we maintain today, and which will enable us to reach a higher standard in the future.

Manual training is the pedagogical application of the law which says that individual development means the repetition of racial development. We wish to educate the child by practical work exactly as humanity has grown and developed under the educating influence of work. The object is to acquaint the child gradually, through its own work, with the world

of practical experience. A child while engaged in hand work is never free from the necessity for intelligent thought. While it is in these vocational subjects that the idea of employing the activity of the child finds its most marked expression, yet the same principle extends its influence to other subjects; above all, the sciences which deal with real things. In mathematics, the most abstract of all the sciences, we find various ways of making use of the knowledge gained in manual training shop, especially in the working out of projects to illustrate some principle or fact that is hard to understand from a mere drawing. Possibly it is true that we will not accumulate the same quantity of matter through this system of actual work and experiment, but what the pupil learns in this way is his property for life, while what he learns by rote, for examination purposes only, is a transient possession. In some cases a series of experiments may be carried on by the instructor which help to clear up any given point, but it is not sufficient that they see the experiment worked out before them, but they should take part in the actual working out of it. When instruction in mathematics, physics, geography and natural science are based not only on observation, but on practical participation, when experimental science shall have fully merited its name in its attitude toward inquiring students, then, but not till then, shall manual training bear full fruit in connection with school education.

If the normal schools are going to properly fulfill their mission of preparing teachers for the elementary schools in such a manner that they will be well fitted to assist in the attainment of the object at which general education aims, they must train them for the teaching of these vocational subjects which are to do a great part of this work of promoting the purposes of general education.

The following I consider some of the important pedagogic reasons for the teaching of these vocational subjects:

1. Physical training. It is here that we find the better development of bodily strength, the agility and skill of the boy. It has a direct influence upon the physical health of the pupils, and by practical occupation introduces a just proportion and harmony between mental and bodily exertion. By introducing a wholesome change it makes the pupil more ready and fit for the part of his day's work which requires purely mental exertion.

2. Training of the hand. At least 90 per cent of all school children will, in the future, have to earn their livelihood by their hands, in some one of the many occupations. It is therefore very necessary that the training of the hand be no more neglected than the training of the mental powers.

3. Training of the eye and cultivation of observation. It is here, also, that we find the eye trained to see keenly and accurately. It cultivates the power of observation and teaches the child to see for, and to depend upon himself. The use of tools without observation is impossible, as the moment one commences to use a tool he must also use his senses and devote his entire attention to it.

4. It develops the sense of form and lays the foundation for the cultivation of taste.

5. Influence upon intellectual life. It assists mental culture by quickening the intellect, for judgment and intelligence are required to solve the tasks met. It aids the concentration of attention, and encourages logical thought. It develops the power of decision and assists in clearing up points that theoretical teaching has left confused and vague.

6. Cultivation of the will. It guides the natural impulse of the child to be doing into the right channel. It stimulates a delight in work and produces a love of diligence. It trains the power of the will to work for a definite aim and tends to develop a strong and determined character. It calls forth the pupil's will power to overcome physical difficulties, developing it by the gradual overcoming of any and all difficulties that may be encountered. It is a pleasure to work at anything where the degree of success is so apparent and where each step is really an end in itself, but yet only a part of the whole. It encourages him to stay with a task until the desired result has been attained. A child can learn his own limitations and powers in no other way than by doing.

Now admit the truth of even a part of the foregoing and I think you will all agree that there exists a great need for teachers of these vocational subjects in the elementary schools. It is a need and a demand that is growing rapidly and being acknowledged by the foremost educators of the entire country. It is a need that the normal schools of the country have ignored until recently, and it is wonderful how they are recognizing it today, as is shown by the number in which these vocational subjects are taught, and in a few states by the organization of normal schools for the express purpose of teaching these branches.

Inasmuch as every school cannot have a special teacher for each of these subjects, it falls to the teachers they do have, to present them in the best way they can, which in many cases is not the most satisfactory, either from the standpoint of the teacher, the pupil, or the school authorities, because the teacher has not had the training in the normal school that he should have had along these lines. It has not been the fault of the normal student, but rather of the normal course of study. And we should do our part to see that this fault exists no more. It is only a question of a short time until we will find manual training and agriculture taught in practically every school. Therefore I fully believe that every school that pretends to prepare teachers for the elementary schools should by all means have a thorough course in manual training and elementary agriculture. By a manual training course I mean, not only a course in woodwork as is often meant by that term, but rather a course including work in paper, cardboard, reed, raffia, clay, wood, metal, and so domestic science and domestic art. Enough time must be devoted to it so that the student may gain a thorough understanding of it, and enough skill be acquired that they will be able to present it to the children in the elementary schools with as little hesitancy as they would any other subject. We must take up the work with our students as they have to do with theirs, giving methods of presenting it to different

grades of pupils, the same as methods are taught in the other branches. One of the teachers's aims must be the impartation of skill and it follows that he must be skillful, not only in that which he teaches, but also in the art of teaching.

Skill, however, should be one of the minor aims, as it is of more importance that the pupil have the power to look beyond what he is working on at the time and backward as well, taking in the whole process and seeing it from beginning to end. Care must be used in the selection of projects, as too often only the temporary interest of the child is considered.

Where possible, without too great a sacrifice, it is well to select material and projects that will arouse interest in the life of production and will excite ambition in the line of industrial occupation. We too often make our own selections without any regard to any special industrial significance or any large social meaning, taking rather what can be done easily and be momentarily attractive.

We cannot prepare teachers of manual training in one year, no, nor in two, if we devote such a short time to it each day as we are now doing. Still, we must confine ourselves to the very elementary work, as a great part of the strength of the teacher will be acquired by overcoming the obstacles presented by the more advanced work. They will also then be the better prepared to grasp the details and methods of presenting the more elementary work. Again, the more training our normal students get along these lines, the better able they will be to carry their other work, and instead of being a hindrance as some say, I think we will find that it will enable them to carry more work and with a higher standard than before. They will have had a broader experience and will be more able to cope with the practical problems they meet when they start their career as teachers.

I fully believe that if we were to make our manual training compulsory in the first year of our normal course of study and elective after that for as long as desired, we would find our students taking hold of their work better and making stronger teachers. The average first year normal student needs and needs badly, good training in orderly habits, observation, the power of thinking and acting at the same time, self reliance, concentration of attention, and in general orderliness and good judgment, which he can get nowhere as well as in a good course of manual training.

As this is an agricultural state, a great work can be done in the elementary schools to further the agricultural interests and to make the younger generation satisfied with the farm life they are living, and which most of them will continue to live. If each normal school had a few acres of ground on which to carry out experiments with school gardens, etc., and where they could, as far as possible, acquaint the students with the native shrubs, plants, and flowers found at different seasons of the year and in different parts of the state, and to give them a thorough understanding of the fundamental underlying principles of agriculture, they would be equipping the teachers of the future with a knowledge that would be of

great value and benefit to them, and in turn to their pupils in the elementary schools. It is surprising how little even normal students know of the native trees, shrubs and plants that grow at their very door. We should do more than we are doing to make them acquainted with nature and to interest them in their every day surroundings.

The majority of our students get their training for their life work in the normal school; such being the case, we should endeavor to give them a training that will fit them not only for elementary school teachers, but one that will enable them to take their place in the practical world and to solve the problems of this world as they meet them.

By giving the young ladies a course in domestic science and domestic art, they will not only be better prepared to fill the place of home-maker, as a great per cent of them will be called upon to do; and upon our homes depends our future prosperity.

As it is the primary function of the normal schools to train teachers for the elementary schools, any other institution which takes up that work will be encroaching on the normal school's ground. Some of the other state institutions which have the training of teachers for the secondary and higher schools in mind, will necessarily have to cover some of the ground covered by the normal schools, but it should be in a different way and with a different object in view than that of training merely for the elementary schools.

At the present time the normal schools are not as well equipped for the teaching of agriculture as they should be, nor as the agricultural college is. In fact, I believe that the agricultural college is, or at least should be, in a better position to know what is most needed by the farmers of the state than are the normal schools. Therefore I think that the normal schools should co-operate with the agricultural college in adopting their courses of elementary agriculture that they may the better introduce that which is most needed. There should be no strife between the different state institutions as to what each should teach, but they should work together in perfect harmony that they may the better fulfill their mission and render as much assistance to the people of the state as is in their power.

WHAT NORMAL SCHOOLS SHOULD DO TO TRAIN TEACHERS FOR TEACHING VOCATIONAL SUBJECTS IN THE ELEMEN- TARY SCHOOLS.

PRESIDENT E. G. BURCH, STATE SCIENCE SCHOOL.

After listening to the most excellent paper which has just been presented, I feel that what I may say will add but little to our knowledge of the subject. Yet we will arrive at reliable conclusions only by taking the consensus of many opinions.

During the past six years it has been my lot to give to the matter of vocational education some study in order that I might be able to outline courses of study and put into operation the work of an institution that is in the main vocational and which articulates on the one hand with the work of the elementary schools and on the other with the college and university.

There is a spirit of unrest and dissatisfaction pervading the minds of thinking educators and practical men of affairs with regard to the present state of our educational system. There is likewise apparent a determination to correct evident faults and to substitute for present methods something that will produce more desirable results. The final word will not be spoken today nor tomorrow and possibly not for years to come, for it is a complicated problem and will require for its satisfactory solution thorough and careful consideration.

Our estimate of the purposes of life differ from age to age and that which is efficient and prevalent at one time may utterly fail in another age and with other habits of thought. Our idea of education is the highest possible development, physically, intellectually and morally, for every member of the race, and if all human individuals were identical in every economic environment, and their individual capacity the solution would be simple indeed. But we know that economic conditions differ widely and that individual capacity differs yet more widely, and in addition to these the question of educational opportunities must be taken into account.

The more we study the question the more we must be impressed with the fact that what is a vocational subject for one pupil may at the same time become a cultural subject for his class mate. Arithmetic for one may be strictly vocational, for another largely cultural. Economic conditions compel a great percentage of our people to become wage earners and producers at about sixteen years of age. This percentage is doubtless as high as ninety in most localities. The favored few who will remain consumers for a much longer period of time need not concern us in this discussion.

It is probably true that the majority leave school at or near the close of their grammar grade work, say at about fourteen years of age. They are of little economic value and drift into this and that occupation with

small compensation for their services. As a rule they remain in this occupation until they are eighteen or twenty and find their services then of scarcely greater value than when they left school. It is this great untrained mass that needs consideration and that demands for itself the same opportunity for self help that we have been giving to the more favored few.

There is a great waste and loss in the employment of unskilled and undeveloped workers. In the interests of economy we must demand greater efficiency in the producers, and greater efficiency means better training, and this training should be begun in the schools in which the child completes his formal education.

I am sure that we can agree that every child is entitled to a fair proportion of that training that will make him a useful citizen and a productive member of society. We in America like to think that we provide equal opportunities for all our people through education, and yet we fail to provide for that great mass of our people who early in life must face the ever more difficult problem of self support. The home no longer assumes the responsibility and the schools are doing little to meet it. Between the irresponsibility of the one and the criminal neglect of the other the child is left to shift for himself.

All children, no matter what their sphere in life may be, may profit by a uniform system of training up to a certain age. But what that age is cannot be definitely fixed but must be judged from each individual case. It will be later in some cases than in others. When that time comes and the child begins to think and act upon his own responsibility he should be brought more closely into contact with the real affairs of life in order that he may get some training for its duties, and, what may be of equal value, that he may be able more intelligently to choose his future life work. If now he is fortunate enough to fall into the hands of a teacher who is conversant with the varied activities of life outside of the school room, the teacher who can bring the child into touch with the great throbbing pulse of the world's work, that teacher has a power and influence over the life of the child which will implant an ambition for better living and more thorough preparation for the tasks of the future. There is a critical period in the life of every boy and girl when they rebel against the repression and tyranny of school and long to be free from its restraint. If the school was in closer touch with the future life work of that boy it would be able to give him a training in the rudiments of his vocation and in many cases incite him to a determination to continue his preparation as far as possible.

Our normal schools prepare a large number of the teachers who are in touch with our young people at this critical age of leaving school. I believe that these teachers should be trained well in some of the vocational studies so that they might give sympathetic and helpful trend to the training of the child as well as impart the rudiments of a vocation. It is well to understand the difficulty that here arises because few teachers will be trained in more than one or two lines, but let the preparation be along those lines that are most likely to concern and interest the pupils.

In our own state, agriculture is the dominant industry and it should be taught in our elementary schools as thoroughly as arithmetic or grammar. Our agricultural colleges are doing a great service to the state in that they are taking the school to the people and instructing them in the very things that they can utilize in their every day farm life. I believe that every important industry should be considered from the same standpoint. This is where our so-called trade and vocational schools find their chief function.

Our normal schools as at present organized may not be able to provide the training required for vocational instruction, equipment and teaching force are expensive, but I do not believe that the matter of expense ought to be permitted to stand in the way of greater efficiency when that increase in efficiency imports so much for our elementary schools. Extend the scope of the normal school if necessary and equip it so that some degree of vocational instruction may be required of every prospective teacher. Then these teachers as they come into intimate contact with the boys and girls during this vital period of unrest and indecision may impart to them instruction that will be useful and advice that will be wholesome, because it will be to some degree based upon personal experience.

When our normal graduates are required to make this preparation it will mean better teachers. Better teaching and more vital contact with the needs of our patrons will eventually mean better wages, and better wages will attract more men into the service of our elementary schools at the period when the boy feels the need of sympathetic guidance and help in the planning of his life work.

I do not conceive that the aim of the normal training shall necessarily be to prepare experts in vocational teaching, but they should be able to carry the student to that point where he will find himself and have an interest aroused that will lead him to complete his work in some special vocational school.

Our state educational institutions exist for the benefit of the people. They are maintained by the state and ought at all times to be serving the needs of the state to their highest capacity. I know of no way in which they can be of greater service than in making effective a system of vocational training for all those who find that training necessary or desirable.

There are few enough proficient teachers, and recruits should be welcomed from whatever source they may be obtained. In all of our state educational institutions there are young people who have in them the qualities that go to make up successful and effective instructors. I can see no valid objection to issuing a special teachers certificate covering certain vocational subjects, to the graduates of any of our state schools that maintain courses measuring up to a required standard of attainment and scholarship. We need have no fear that we shall lose anything of the professional spirit of the true teacher, if we permit those to enter the charmed circle, who may not be the possessors of normal diplomas, but who have demonstrated that they have that love for the work, coupled with enthusiasm and ability, that are the distinguishing marks of the born teacher.

AFFILIATION IN STATE INSTITUTIONS.

PRES. E. P. ROBERTSON, WESLEY COLLEGE.

(a) Should it locally end with the state university?

(b) How it comports with the American idea of church and state.

Affiliation is a new word in educational terminology. It records progress toward a constructive solution of the problem of relating diverse institutions founded to promote higher education. It is the educational phase of a general movement to unify and correlate agencies of kindred purpose, whether public or private, so as to promote efficiency and save needless waste. The judgment of the age is against destructive competition and favors co-operation, is against needless duplication and favors rational division of labor.

The process of reconstruction is everywhere manifest in the industrial world. It is not simple for many competing interests are involved. Some must suffer loss while others gain, but the central purpose is to conserve all productive energy and employ it in more profitable service. The mortality is great but it is the mortality of the body and not of the soul. Destruction is but incident to reconstruction. Mortality is swallowed up in life.

Complex as the problem is in the industrial world it is even more complex in the field of education, with its amazing variety of institutions, that reflect diverse national ideals of pioneers from many lands; that embody varied religious faiths new and old, or possibly the peculiar notions of private founders. Then too, there is the variety of type incident to the time of founding.

American educational history reads from east to west, from the earlier individual types of parochial schools, academies, and colleges of ecclesiastical foundation, to the later respective representatives of all these types, the universal elementary school, the public high school, the state university and all the growing variety of specialized schools of civic foundation. The tendency is plainly toward a system of free public schools in every state rising pyramid-like from the elementary school at the base, up by various grades to the university at the top. The newer western states have been settled and organized in the day of this vision and have more or less perfectly embodied it in constitutional provision and material form.

The public high school and the state university are of late construction but have made swift and sweeping conquest of public favor. The first typical public high school was opened in 1821, at Boston, of course, up to 1850 there were only six cities of 25,000 and upward maintaining public high schools. As late as 1885 there were only 35,307 students in public high schools in the United States, while private and church academies enrolled 97,020. This marks the turning point in the compari-

son. Twenty years afterward the public high schools enroll 679,702 and the academies 107,207. Thus while the academies gained 10,000 in twenty years the public high school gained 644,000. The percentage of this grade of students to population shows a corresponding increase which is phenomenal when compared with the increase of any corresponding earlier period. In 1885 the high school and academy students numbered .236 per cent of the population, of this percentage the public high schools had .063 and the private .173. In 1905 the total attendance had risen to .953 per cent with .823 per cent in public high schools and .130 in the private schools. The growth of state universities was only moderate till 1885-9, from which time it has been phenomenal, due in part, no doubt, to the increased output of the public high schools with which the state universities are closely articulated. Within this brief period from 1885 to 1905, college students so rapidly multiply that the ratio of college students to population more than doubles, going from .075 per cent in 1885 to .153 per cent in 1905. This fact appears the more remarkable when one notes that previous to this period the ratio of college students to population had remained at a uniform level of about .075 for many years. This wonderful gain in college students is coincident with the founding and general acceptance of state universities that suddenly have become dominant from Ohio to the Pacific.

Before the coming of the state university the work of higher education was promoted through colleges of private foundation, conducted commonly by the religious denominations. Many of these colleges have had commanding influence and still increase steadily in wealth and patronage. Others have had their best days in the past and find the struggle for existence ever harder to endure. These colleges represent the old order in higher education and embody the patriotic and religious devotion of the fathers who laid the foundations of American institutions. They have made possible whatever has come later. It is with these colleges and the higher institutions of the state system that the problem of correlation has mainly to do. For the colleges the question is two-fold: (1) What shall be the relation of the colleges to one another and to the universities of the same religious foundation. (2) What shall be their relation to the state schools. The answer to either question may suggest change in constitution, or location, or both.

That this matter is a live issue among the colleges is evidenced by many signs. A committee of the Methodist college presidents association has been at work upon it for the past year. A list of formulated questions indicated the various phases of the problem: Whether the weaker colleges shall be reduced to junior colleges with two years course; whether the colleges shall be affiliated with the state universities, or with church universities, or with both. In general what shall be done to relate the Methodist colleges among themselves and with the state university.

To a certain question President Cyrus Northrup gives blunt reply: "Discontinue the weaker colleges and affiliate the stronger ones with the state university." This reply assumes that the state university is to be the central factor in readjustment. The position is fully warranted for sev-

eral reasons, the principal one being that all people of a state have equal proprietary interest in the state university and equal right to partake of its benefits. This point is often overlooked. Some appear to have the notion that the state university is the property of the professors and students who make up the academic body and that those who elect to attend another college thereby become proprietors of that college and forfeit all rights to the state university. Of course there is no basis in fact for any such notion. If it could be clearly seen that the state university belongs to all alike, to those who attend no more and no less than to those citizens who attend elsewhere, a beginning would be had for a fair discussion of the problem of correlation.

The word "affiliation" appears in the reply of President Northrup above quoted, but there is no definition of the term or outline of the relation to be established under it. In fact "affiliation" has no fixed meaning if details are considered. It does imply co-operation and not conflict, and division of labor without needless duplication of appliances. It suggests helpful comity relations among the colleges and particularly between the colleges and the state university. Such a policy is now followed in Wisconsin and Iowa, and is the subject of discussion in Kansas. In Wisconsin certain colleges approve the natural desire of students to specialize in certain courses in the university and the university favors students taking the early years in college.

But there is quite another use of the term "affiliation." Toronto University with its affiliated colleges presents a notable example. It is under a government having not the same temper as our own, but it is a close neighbor and a pioneer in adopting the principle of co-operation of church college and state university. In this case, also, one of the affiliated colleges, Victoria, moved from a former location to the seat of the University. To describe the working plan I cannot do better than quote a letter written by a faculty member of Victoria college:

"The University as far as arts is concerned, consists of four parts: The University Professionate, and three arts colleges, University college, Victoria college and Trinity college. Each student registers in which ever of these colleges he prefers and to that college pays his tuition fees. All the colleges teach the same subjects, ancient languages (Latin, Greek and Semitics), ancient history, English, French, German, and ethics. All other subjects such as mathematics, natural sciences, modern history, medieval history, mental philosophy, Spanish, Italian, are handled by the university professionate. For all classes under the university professionate the students registered in the three colleges have free entrance. The university professionate and university college are wholly supported by the state. Victoria and Trinity receive nothing from the state for their own special work. Arts students of all colleges meet together in the professionate classes. A board made up of all arts instructors in all colleges and in the professionate set the examination papers and a common senate grants the degrees. Victoria and Trinity have each a theological faculty, and each of these does its own teaching, examining and degree conferring without interference from any quarter connected with the state."

The Toronto plan has no exact duplicate in the United States, but its central principle is the comity relation between schools of civic and of church foundation, so *related in neighborly proximity as to make co-operation possible in daily practice*. Many have supposed that the Toronto plan was copied in North Dakota when Wesley college became affiliated with the state university. The fact is, the plan followed in North Dakota was formulated without knowledge, on my part at least, of the Toronto plan, or any other of like nature. As Wesley college is the earliest notable case of affiliation in the United States it will be proper to go over the steps leading to it.

Several years before coming to North Dakota to enter upon educational work, I visited the University of Wisconsin and was privileged to be the guest of Richard T. Ely. While walking about the campus Dr. Ely stopped and swung his cane about in a gesture and said, "There is something wrong here. This is the largest aggregation of young citizens in the state, and it is the only aggregation from which the church is absent. It is a mistake for the state and a serious omission on the part of the church." I asked him to say how he would have it and he replied, "Every church should be in vital touch with its own young people while they are students in the university." This conversation of ten years ago was the first concrete putting of the case to my thought. The first session of the state educational association after my arrival in this state was held in Grand Forks, December, 1899. While seated as a guest with other school presidents of the state about the table of President Merrifield, he said to me across the table, "You ought to be up here alongside the university." I said, "That is Richard T. Ely's idea." He replied, "I have just received a letter from Dr. Ely on the subject, and I believe in it." Upon my invitation President Merrifield addressed the Methodist Annual Conference at its meeting in Grand Forks the following spring and urged the wisdom of such a course. It was a suggestion so far away from the thought of the conference that no discussion followed upon the proposal and the matter was not again discussed until five years later when to me as president of the independent church college the question grew into form of a conviction that some rational basis of co-operation should be sought before our institutions should become so fixed that no readjustment would be possible without great loss.

This revived the main question of possible plan and resulted in the joint authorship of the "Memorandum," signed by President Merrifield and this writer, January 9, 1905, and which was worded with the double purpose that it serve as a platform of general principles for all colleges of the state, and a bill of particulars affecting the immediate case in hand.

Near the University of California there are four theological seminaries whose students take a large part of their work in the university, but take their degrees only from the seminaries. The Christian denomination has a bible college at the seat of the University of Missouri, and one also at the University of Oregon. In both cases the state university gives credit for certain courses in the bible college on about the same plan followed in North Dakota.

Dean Reed of the University of Michigan in a letter to this writer, says: "In case there were any institution in Ann Arbor offering instruction in such subjects of a grade which we could recognize as the academic equivalent of work done in kindred subjects in the university, I should be most heartily in favor of recognizing this branch of work. It seems to me your solution of the question is an eminently rational and healthy one." President James of Illinois, pronounces affiliation the most important movement in American higher education.

Thus far affiliation has been a college-university question and naturally the state university hold central place in the discussion. One reason for this has already been given, viz., the proprietary interest in the state university of all taxpayers. Another reason is found in the constitutional aim of a university which President Gilman defines as "a group of agencies organized to advance the arts and sciences of every sort, and to train young men as scholars for all the intellectual callings of life."

The university includes the function of the college and adds the faculties for professional training. Its constitution makes it at once a competitor of all colleges within its territory and even beyond state limits, for its endowment is the assessable wealth of the state. The annual budget of Universities of Illinois, Wisconsin and Minnesota is in each case over a million dollars. Not even Chicago University has annual income equal to any one of these universities of all the people. So far as endowment and equipment are concerned the state universities easily distance all competitors. But herein lies one reason for this discussion. The colleges were founded and are maintained by the same people who have created and maintain the state university. It is necessary to hold this fact constantly in mind. Some loosely talk as though the state university had been created by and for those who are not committed to any denominational college, and that it is a simple case of competition with sides clearly drawn. The situation is quite otherwise. Generally speaking all citizens are more or less definitely affiliated with some one of the religious denominations. Granted that every denomination has its colleges, the citizen is a party to its support. At the same time he is paying taxes to support the state university. It is true that individuals connected with a denomination may have volunteered nothing to found or maintain the college. It may as likely be true that he dodges his taxes due the university. The typical good citizen has invested in both the college of his church and the college of his state. They are both objects of his devotion and he cannot be heart free to rejoice in the victory of either over the other.

Furthermore, when his son is prepared to enter college he can attend only one at a time, and the question is, which one? The college stands for general education and preliminary preparation of candidates for all professions, but surely for the ministry. The typical state university is supposed to give preliminary training suited to all professions and adds certain professional faculties, uniformly law and medicine, but never the faculty of theology. Herein lies a constitutional peculiarity and limitation of our state university. From Salerno, Bologna and Paris, through six

hundred years a university constitution, to be complete, has provision for four faculties, arts, medicine, law, theology. Such a university meets the definition of Dr. Gilman and is calculated "to train young men as scholars for all the intellectual callings of life."

Judged by the historic university constitution the American state university is incomplete and its function limited. It is not incidental, but fundamental; not by accident, but in accord with the American notion of separation of church and state in all their respective functions. The state university is three-fourths of a university. It has three of the constitutional faculties, arts, law and medicine. Some one may say: "The case is simple. Let the denominations supply their theological seminaries and let the university go on its way."

The case is not so simple for several reasons, among many. In the American state university the arts faculty prepares for the professional schools of the university. These professional schools are noted far down in the college course and are plainly anticipated by the increasing scope of electives appropriate to the respective graduate schools. The state university not only has no theological faculty but it is not organically capacitated to produce candidates for schools of theology that the churches may establish. This is the real explanation of the dearth of product in professionally trained religious leaders whose college preparation is accredited to the state university.

If three young citizens enter a state university together, one to become a lawyer, one a doctor, and one a minister, they will not go far before the prospective minister will discover that no such adequate preparation has been made for him as has been made for his lawyer or doctor friend. He has equal rights there but not equal advantage, and unless his choice of calling has been firmly fixed he is likely to yield to the call of environment and swell the ranks of the law or medicine. Either this or change to some institution organically constituted to anticipate his presence, encourage him on the way, and later commend him to the authorities in the field of his life work.

To complete the educational opportunity afforded at the state university this constitutional limitation of the state university defines the scope of the essential function of the affiliated church college. Without it the university is not capacitated fully to meet the educational demands of our Christian civilization.

Another fact more elusive than the above lies back of what has been said. The lawyer is the professional product of what is more than merely a law school. The school of law evidences lively concern for the whole political structure of society. The medical school is likewise but the upper expression of a general concern for physical well being. Organic provision for the faculty of theology would mean a like concern for religious culture, for the personal and social virtues that are the concrete embodiment of religion, and which are the moral embodiment of theological science.

The affiliated college should be welcomed as the academic provision for this organic incompleteness. It is not a missionary to convert the heathen,

nor the expression of adverse judgment upon the university. It implies really a loyal devotion to the university for all that it is capacitated to perform and presupposes that its atmosphere is eloquent with the best aspirations of all citizens, and that it cannot be hostile to religion without betrayal of trust; neither can it be rightfully charged with church function, for it is a civic institution.

The church college should offer the instruction in the department of religion of the college of arts, and may appropriately supply the faculty of theology, and so complete the continuity of sciences which Prof. Paulson calls the happy dispensation in the history of German Universities.

By its articles of incorporation Wesley college is empowered to meet this demand. It is organized to include the full scope of the bible colleges of Missouri and Oregon above mentioned, and the theological seminaries at the seat of the University of California. In this respect it duplicates the provision for religious and theological instruction in the affiliated church colleges of Toronto, but unlike them, is not a competitor with the university college of arts. Wesley college offers the equivalent of one year in a theological seminary in addition to the more preliminary college courses. A student may elect this advance work, with the resulting credit from the University, on the same terms as the prospective lawyer or doctor may elect from his proposed professional school. Academic equality of opportunity is thus realized without waste of duplication. The minister, lawyer and doctor are college chums together, with equal advantages, while science and religion are in friendly communion, each ready for help from the other.

Whether affiliation should locally cease with the state university is an open question and may well invite consideration.

That it comports with the American idea of separation of church and state is clear at a glance. The affiliated college has not a dollar of public money. It rests on its own foundation, hires its own teachers, and in every sense is just as independent of the university in its support and conduct as it would be a hundred miles distant. Wesley college has absolutely no more to do with the public funds or official control of the state university than Fargo College has, or Red River Valley University had when at Wahpeton. Any possible criticism of the plan based upon this feature is only an expression of ignorance or is used as ignorance for a purpose.

In America religion is organized into denominations. The plan of the past has been for each denomination to found colleges of its own. This same denominational integrity is provided for in the plan of the affiliated college. In fact the proper proportionate emphasis upon religion will not be possible in state universities without the organized effort of citizens to give balance to the tremendous energy devoted to other departments. This means that affiliation cannot be complete without the listment of all denominations. The students representing all churches will meet together for so much of college and professional education as common consent can be provided in the university. For the courses in department of religious instruction they will go to the teachers of their respective denominations.

Those charged with the official conduct of Wesley college would be glad to welcome as neighbors similar institutions of all sister churches.

We have risked something to make the experiment but regard the experimental stage as already past and continued effort worth the while. We are convinced that even greater satisfaction awaits the day of the coming of other colleges, which we trust may not be long delayed for the fullness of time is at hand.

THE MOST PRACTICAL LINES OF ENGINEERING EDUCATION FOR AN AGRICULTURAL STATE.

PROF. CALVIN H. CROUCH, UNIVERSITY.

To attempt to present a subject of the importance of the one assigned to me in the short space of twenty minutes, in a manner becoming to the dignity of the subject and the intelligence of this audience is to attempt the impossible. I shall therefore speak only in a general way, and call your attention to a few of the most conspicuous phases of the question.

Engineering, according to one authority, consists of the art and science of utilizing the forces and materials of nature. This is a very broad and general definition, and if I deemed best to give it that broad interpretation in speaking of engineering education, I could make it include all phases of our industrial and much of our professional education. I dislike seeing the term used in that broad sense, and prefer to use it only in connection with the higher work which requires a knowledge of the sciences and an intelligent application of the same when dealing with problems involving materials and forces of nature. In other words, I differentiate between industrial and engineering education. The former, according to my conception, has to do with the training of artisans, while the latter with the training of scientific and professional engineers, two entirely different lines of work.

While I differentiate between them, I am sufficiently interested in the former that I am going to beg your indulgence for a few minutes and speak a word in behalf of what I believe to be a most important educational movement in the thickly populated manufacturing centers in the east, i. e., the industrial or trade school movement. Just what will be the nature of these schools, I do not know, but I think it quite possible that some day the school which graduates competent mechanics will be a prominent factor in the educational regime in large manufacturing centers. Please note that I use the term trade school and not manual training school. The two are distinctly different, with entirely different objects, and should not be confused.

In our complex, highly organized, and highly specialized industrial life of today, no man or set of men is independent. We are all dependent more or less upon one another. We shall never return to the good old days of our grand or great-grand parents, when the wife wove the fabrics from which the family wardrobes were made, and when the husband was his own farmer, carpenter, cobbler and mason; and we should be thankful for it, even though we have sacrificed one kind of independence.

With the introduction of our highly organized and specialized factory system, and with our improved automatic labor-saving machines, our industrial life has changed greatly. The ratio of the number of expert "all around" mechanics to the total number of men needed in a manufacturing

industry has been very much reduced; and with this change the old apprenticeship system has in many, if not in most cases, either been greatly modified or abolished. A reaction, however, seems to be setting in, for the managers of some of the large industrial concerns apparently see danger ahead and are making provision for the training of skilled workmen by having well defined lines of work laid out for apprentices who are under the direction of supervisors or directors. I cannot say that there is a widespread movement in this direction, but there is a movement, and I believe it indicates that a change is to be brought about.

Those of us who have passed through the schools and have come up through the shops, and are acquainted with the possibilities and the workings of trade schools, have reason for believing that something is missing in our educational system in the manufacturing center, i. e., a trade school which will give to a boy who wishes to become a mechanic, a training that will fit him for his life work. We offer such privilege to the bookkeeper and the teacher, why not give it to the mechanic? I would not be understood as advocating the elimination or curtailing of our present excellent system, but rather as favoring an expansion of the same where the needs or demands warrant the expenditure. I would not advocate the establishment of a trade school in every city, but I do think that even in an agricultural state, new courses, which would have direct bearing upon the chief occupations of the community served, could be advantageously offered in many schools, which would give the student as much culture and training as many of the older courses. I am also inclined to believe that provision should be made in every state, making it possible for a young man to become a carpenter, bricklayer, machinist or what is popularly called a stationary engineer, by the establishment of at least one trade school in each state. Some of this artisan work is already offered in some of the state institutions of North Dakota, but I am not aware of there being a school in the state where one can learn the bricklayer's, carpenter's or machinist's trade.

I have begged your indulgence for these few minutes to speak a word in behalf of this movement looking toward industrial education in the manufacturing centers, but, lest some should be inclined to carry it to extremes and urge its introduction on a grand scale in North Dakota, I would urge that whatever change is brought about, we should make a careful survey of the field and go slowly. I believe we should be both progressive and conservative at the same time. Should any changes be made looking toward "vocationizing" our schools, as the term has been used, we should always have in mind the industrial pursuits of the people patronizing the schools, and new subjects should be introduced into the curriculums with discretion. Interested as I am in industrial education. I would advocate conservatism in this state.

I have called your attention to these few remarks concerning industrial education because of the attention given the subject of "vocational education" in making up the program for this meeting, and because of my interest in the movement and intimate knowledge and acquaintance with conditions which have led up to the establishment of industrial or trade

schools in the eastern states. The engineer who has to direct the energies of large numbers of mechanics cannot help being interested in the question as to how these mechanics can be most economically trained. It is an economic as well as a social problem of interest to all mechanical engineers, and I am inclined to think that the trade school, if properly conducted, will be its solution. Trade school work is not what is called college grade work, and perhaps I should not have introduced it in this paper, but my interest in the movement forced me to mention it.

In a young agricultural state like our own great commonwealth, the courses offered by the schools of engineering at its state university should be technical and broad in training rather than highly specialized, so that their graduates may enter any of the fields of engineering and in a short time master details and win success. In a state with but few of its resources fully developed, and many but just beginning to be developed, the opportunities for the young engineer to enter any particular line of engineering already developed, are limited. We have not numerous large industrial corporations save the railroads, calling for large numbers of technically trained men, but there are abundant opportunities for the young engineer with energy and push to develop various lines and make a mark for himself, and assist in developing the state.

As the villages and cities grow, their municipal engineering problems rapidly become of greater and greater importance. The problem of water supply is always one of the first problems which confront a municipality. The installation of pumping plants and water works distributing systems are questions which should be settled intelligently, and in this connection the services of the engineer can be most profitably employed. The selection of the machinery or the type of machinery should not be settled by amateurs. A town or city can better afford to pay the consulting engineer something for his knowledge and experience than to pay for a blunder throughout the life of a pumping plant, for the cost of operating such machinery is often expensive.

The problem of sewage disposal is another which should be settled with great care by all towns and especially is this the case in North Dakota. It is to be hoped that the day is not far distant when a community will not be allowed to pollute streams which may furnish other communities with their drinking water. It is much easier to keep sewage out of such water than to extract it after it has been allowed to contaminate the same. The problem of sewage disposal is of paramount importance to every community which has a sewage system, and should be settled in a scientific way and this means the services of the engineer. Too frequently the question is solved with respect only to the community served. The large eastern cities are expending vast sums yearly, endeavoring to settle their water supply and sewage disposal propositions along hygienic and scientific lines. It is little less than a crime in this day of enlightenment for cities to pollute streams with its sewage when such streams are the water supplies for other communities.

As villages reach that stage in their growth that they must have gas and electric lighting, the services of the mechanical or electrical engineer

are again in demand. The same may be said in connection with street railways. It goes without saying that the steam or electric railroad needs at its head and in various stations in the operative department, men with technical training.

Every city which serves as a distributing center for a large and well populated section will, even in a purely agricultural state, need a foundry and machine shop. Here again the services of the mechanical engineer are needed. Every town of considerable size needs the services of a heating, ventilating and sanitary engineering firm. The questions of heating and ventilating are too frequently overlooked, for judging from evidences all about us they are frequently left as a last consideration, with the result that inadequate provision is made for the same. There are exceptions of course, but it is not uncommon to see expensive buildings in which little or no provision has been made for ventilation. I am glad to know that steps have been taken to control this problem in connection with school houses in this state.

Every city needs the services of a city engineer who can accurately locate lines, determine grades, and systematize the work so that a record is had of every water or sewer connection, and that some supervision may be had over various building operations. When the town or city has reached that stage in its growth that it needs paving, here again can the services of the engineer be profitably employed. Every county should have a competent man to look after its engineering interests and the making of its surveys, and this should call for an engineer.

The demands for the services of the engineer, thus far enumerated have had to do almost entirely with the growth and development of our cities. In all states there are bound to be resources other than that of agriculture, which need developing, and the lines of work for which our engineering schools should equip men are as diversified as are these resources, be they developed or undeveloped.

There is not a state in the union in which there is not more or less mining, more or less power to be developed, and raw material to be converted into finished or partially finished products. In North Dakota we have excellent opportunities for the manufacture of certain cements and plasters. The clays have been found to possess excellent properties for the making of common and pressed brick, and the manufacture of pottery. These two fields have been exploited by our school of mines and state university, and there are various other industries to be developed.

We also have in this state an unlimited supply of fuel that can be easily and cheaply converted into power. At the St. Louis Exposition the United States government conducted a large series of tests of various coals, and to the surprise of many, the North Dakota lignite coal proved to be rich in power producing properties. It was found to be an excellent fuel for power purposes when used in the gas producer. Certain difficulties I believe have been experienced in using the gas in the gas engine, but as soon as these have been overcome, as they doubtless will, this resource will mean much for North Dakota.

The problem of irrigation calls for the services of the mechanical and civil engineer, and in the not distant future it is quite possible that the good roads movement will gain sufficient headway that there will be a demand for men with knowledge of materials needed and methods to be employed in making roads. Telephone engineering calls for the technically trained man, and the railroads employ large numbers of both civil and mechanical engineers and the tendency seems to be to employ more of them. The demand for technical graduates is so great that we can not begin to supply the demands.

I have mentioned briefly a few of the numerous lines of engineering which exist in every state in the union, and many more might have been cited, but I think I have cited enough to show that the lines of engineering in every state, whether it be an agricultural state or not, are varied, and, that to fit men for them, the engineering schools should give broad, comprehensive technical courses.

The curriculums of the engineering colleges at the state university were made up with the needs of the state in mind. They do not offer a large number of optional engineering courses for the senior year as do the large eastern engineering schools. They have not the means and there is not the need for such specialization at present. The courses are so arranged that a broad foundation is laid, upon which the graduates can build their careers. We endeavor, in the college of mechanical and electrical engineering, to give the students the underlying principles governing engineering problems, to teach them to think for themselves, to correlate their knowledge, and to use the material at hand in solving their problems. We endeavor to teach principles and their application so that our graduates can enter any legitimate field of engineering and in a short time master details, cope with the difficulties, and work out their salvation.

The engineer is not made in the university any more than is the doctor made in his professional school. The engineering graduate must get experience in the field, handling problems that try his mettle, before he can consider himself an engineer in fact as well as in name. Too many have a misconception of the abilities of our engineering schools, thinking they can take a raw recruit from the high school, give him two years training in the sciences, two years in engineering subjects, and then turn him out an accomplished and finished engineer. The college training will enable him to become such in a comparatively short time, and, if he has learned to think for himself, to rely upon his own resources, there will be little occasion to worry about his winning success in the line of engineering for which he has prepared himself.

I am not a strong advocate of encouraging undergraduate engineering students to specialize in any particular sub-division of the main lines of engineering. I prefer that the student get a broader perspective of his profession than can be gained by following too closely to one line of work. I believe it should be the policy of the smaller engineering schools to build up and strengthen the courses they already offer rather than to dissipate their energies over too large a field by offering special courses in a large number of lines.

From what I have said I think you will see that I believe the most practical lines of engineering education for an agricultural state are the same as those for any other kind of a state with the possible exception that we should discourage too high a degree of specialization. Whether I am right or wrong in this respect, the experience of the graduates of the schools of engineering at the state university would justify this position for they are all meeting with unqualified success in various lines of engineering, and are taking prominent parts in the development of the state.

DEPARTMENT OF
SECONDARY EDUCATION

MINUTES OF THE DEPARTMENT OF SECONDARY EDUCATION.

WEDNESDAY, DECEMBER 30, 1908.

The meeting was called to order at 9:50 a. m., by the president, F. E. Smith of Wahpeton. After a few announcements, the following program was given, each paper being limited to twenty minutes, and all discussions being deferred until all papers had been read.

The discussion of the first paper was led by Supt. Sauvain, followed by Supt. Berg, Supt. Hoover and Supt. F. E. Smith. The second paper was not discussed, as the writer had evidently expressed the sentiment of all present very accurately.

Supt. Crane led the discussion on the next two papers, and was followed by Supt. Hoover, Prof. Schmidt, Pres. Hillyer, Prof. Barton, Prof. Gillette and others.

Moved and seconded to adjourn to meet at 9:00 a. m., December 31. Motion prevailed.

THURSDAY, DECEMBER 31, 1908.

Meeting was called to order at 9:15, and the following program was carried out:

Paper, "The High School Curriculum," Principal G. R. Davies, Amenia.

Paper, "The Constants in the High School Curriculum," Supt. A. G. Crane, Jamestown.

Supt. R. L. Mason of Cooperstown was absent and his paper on "Music and Art as High School Subjects," was not heard. The president called for volunteers on this subject and Inspector Heyward responded.

A general discussion of the morning's program followed in which Supt. Foster, Inspector Heyward, Supt. Fitch, Supt. Berg, Supt. Crane, Supt. Ellithorpe, Supt. Woodruff, Prof. Schmidt, and the president of the section, participated.

Miss Amidon of the Valley City normal spoke for a few minutes upon "Music in the High School."

It was then voted to take up the matters of business.

The report of the committee on "Courses in Manual Training" was read by Supt. G. W. Hanna, of Valley City.

It was voted that this report be submitted to the high school board with the request that the report be printed and distributed to the high schools, and the committee be continued.

It was voted to hold a session January 1, 1909, at 9:30 a. m.

It was then voted to go into executive session. Supt. Stockwell then addressed the meeting.

The department then withdrew from executive session.

It was voted to refer the question of high school constants to a committee of three, said committee to report at the next session. Superintendents Crane, Hoover and Murphy were appointed.

It was then voted that the president appoint a committee of five to formulate and make a report upon suggested high school legislation, the report to be made at this session. Supts. Macdonald, Wolfe, Sauvain, Sherarts and Dunbar were appointed.

It was voted to instruct the president to name Supt. Berg to represent this section on the nominating committee.

At the request of the committee on constants, a vote was taken on the recommendations of the committee of seven, twenty-four voting favorably.

The meeting adjourned.

The second paper was not discussed as the writer had evidently expressed the sentiment of all present very accurately.

Supt. Crane led the discussion on the next two papers and was followed by Supt. Hoover, Prof. Schmidt, Pres. Hillyer, Prof. Barton, Prof. Gillette and others.

Moved and seconded to adjourn to meet at 9:00 a. m., December 31. Motion prevailed.

JANUARY 1, 1909.

The meeting was called to order at 9:30 a. m. by the president. It was voted to proceed with the business at once.

The report of the committee on proposed high school legislation was read and discussed, and it was voted to go into executive session.

After the executive session, it was voted to resume the business of the open session.

The committee on constants reported and it was voted to lay the report on the table.

The election of officers was the next order of business. Superintendents Hanna, Crane, Wolfe, Forster and Edwards were nominated for president.

The written ballot resulted as follows: Edwards, 13, Hanna, 11, Crane, 9, Wolfe, 3, Forster, 1. Supt. Edwards was declared elected.

Upon motion, Supt. Hanna was unanimously elected vice president and Supt. Crane was unanimously elected secretary.

Moved and seconded that when we adjourn, we adjourn to meet in business session at the close of the general session this afternoon. Motion carried.

The meeting adjourned.

JANUARY 1, 1909, 5 P. M.

The meeting called to order by the president.

Moved and seconded that we approve the work of the executive sessions. Motion carried.

Moved and seconded that we take the motion regarding constants from the table. After discussion the motion carried.

After much discussion and several informal votes taken, to ascertain the feeling of those present, the following resolution was passed:

Resolved, That it is the sense of this council that we recommend to the high school board that the number of constants now prescribed in the high school manual be reduced.

It was voted unanimously that we have had an A1 time at Valley City.

It was voted unanimously that inasmuch as Prof. C. C. Schmidt is still engaged in high school work at the University, that he shall be considered an active member of the high school council as long as he lives.

The president appointed Supt. A. G. Crane and Supt. N. C. Macdonald to act with himself and Inspector Heyward on the committee on high school legislation.

Upon motion, Supts. Dunbar and Youngdahl were appointed a committee on financing the committee on legislation.

The minutes of last year's sessions were approved by vote.

The meeting was adjourned sine die.

E. R. EDWARDS,
Secretary.

SHOULD DEPORTMENT INFLUENCE FINAL GRADES.

SUPT. H. L. ROCKWOOD, ENDERLIN.

Ladies and Gentlemen: After considering the above question for considerable time, taking an inventory of his limited knowledge at hand and ransacking his mental garret for any chance castaway information that might be helpful, it finally dawned on the writer that the proposition was beyond any entirely satisfactory solution by him. He therefore went out straightway into the byways, avenues and places of learning and invited the attention of greater minds to a consideration of the subject. The answers received determined largely the position taken and the subject matter of this paper. At this time an expression of appreciation is gladly extended to those who so generously replied to the letters of inquiry sent to many school men and women of this and other states. Almost an entirely unanimous response was received. But few excuses of pressing duties were offered and one person suggested that we at Enderlin should have no trouble in getting into communication with teachers, especially in the music and drawing department, since we marry them off so quickly, having accomplished that function this year in exactly three months. Of the hundred or more parties interviewed either by letter or in person, a very large majority expressed themselves as being opposed to deportment influencing final grades in any way. However, there are some capable persons with enviable reputations in the educational world, who are equally positive that it should. In view of these conflicting opinions perhaps the best one can do in a paper of this kind is to present the arguments for and against the question, compare the points and arrange the mean of all opinions in a sort of suggestive plan, at the same time barring all personal prejudices. About the strongest argument offered in favor of the combination is the moral influence it has on pupils. To quote, "I think deportment should very materially influence final grades. In our educational system we have neglected the moral training to a deplorable extent. Every pupil should know that it takes more than book knowledge to prepare for life." To quote further, "Yes, by all means deportment should be considered in final grades, as should punctuality. We are facing a revolution in our educational system. May some master mind figure out a plan that will weave these essentials together in such a way that our boys and girls may come out more nearly perfect men and women, mentally, morally and physically. Perfection is what we need; perfection we must have. How sad it would be for you and for me if the clerk of our school board should make out our warrants for ninety per cent or even ninety-nine per cent of our wages. It requires no argument to show that the business world will not tolerate an eighty-five per cent man. They must have their work done absolutely correct and will allow but few trials. What holds good here holds in a moral sense. How long would one of our boys continue in the employ-

ment of your local post office if he came to his work five or ten minutes late two or three times a week? How rapid would a girl's promotion be in your down town department store if she insisted in writing notes or carrying on endless conversations with her neighbor clerks when she should be arranging the goods on the shelves preparing for the rush. Or the boy in the clothing department who continually annoys his fellow clerks, not working himself nor letting anyone else? We are proud to call our school course a preparation for life. They are and should be though you know the world of business will not tolerate any such actions as are seen in most school rooms. I think deportment can be successfully combined. We use it in our school and I am pleased with the results." The writer overheard a conversation the other day between an English lady and a friend who had been visiting her son in Canada. It was of such a nature that it may not be amiss here. In speaking of the development of the country the labor question naturally came up. During the conversation the lady made this statement: "Notwithstanding the prejudice against the Japanese all must admit that for steady, reliable help they have no equal. Why, she said, they are trained at home and in school to tend to business whether it be work or play, and their training shows in their work." To emphasize the moral need as viewed by those outside educational work we quote from Rev. Batten's paper of a year ago before the educational association of North Dakota: "The tendency to divorce mental from moral training is another of these alarming symptoms. An editorial of two years ago in the Sunday School Times seriously put forth the following absurd proposition: 'Intellectual knowledge is the goal of secular education; character is a by-product. Character is the goal of Sunday school instruction; intellectual knowledge is a by-product.' A larger amount of religious heresy and educational ignorance could hardly have been crowded into one brief paragraph. The state maintains public schools for its children and insists that they shall attend these schools, in order that it may prepare them to be trustworthy citizens. And I maintain that it achieves that aim to a larger degree than does any school controlled by peculiar or specific religious institutions. Such citizenship is not a by-product but the purpose of the state, and the curricula of studies, as well as the choice of teachers, is supposed to be made with that end in view. The 1905 meeting of the National Educational Association reaffirmed the generally accepted truth that "the ultimate object of popular education is to teach the children how to live righteously, happily and healthily," and also "to record its approval of the increasing appreciation among educators of the fact that the building of character is the real aim of the school and the ultimate reason for the expenditure of millions for their maintenance." This same high aim has been voiced repeatedly in the sessions of this state association. Especially was it emphasized in the department of secondary education when the emphasis of educational power was placed on saving the boy, rather than on mere mental training."

Some may say that the need of moral training is granted. If so what causes the moral slackness. What do we consider when thinking of deportment? Is it not the small annoyances of the school room? Those

things which shatter the nerves of so many teachers and prematurely roof the head with gray? And is it not these very things which influence his school morals and determine to no small extent his habits? It has been suggested that they will reform. When, a better time than now? While talking to a group of younger teachers some suggested that they thought deportment should influence grades because in their high school days they remember of looking at their deportment standing first, as that determined largely their chances of exemption from examinations. In case deportment was low one month they took care that it should be improved. Several suggest this plan, but in ninety-nine per cent of cases that resolves itself into an influence on grades, especially for those taking the examinations. "To err is human, to profit by it is divine." For fear we have delayed too long on the minority's opinion we hasten to quote from the opposite view point. To quote: "Your inquiry is at hand. I am very positive in my opinion that a pupil's deportment should not effect his grading in the school subjects. I believe in applying common honesty when we mark pupils as well as in other affairs, and that to me means that when parents and others examine a child's scholarship marks, they shall not in any way be deceived. That the mark in arithmetic shall give the teacher's most conscientious estimate of the pupil's work and ability in that subject without discount or increment for bad or good conduct. And so with the marks in all the studies. In fact nobody would think of any other than this sensible and natural principle if they did not resort to it for disciplinary purposes and to do that is really a confession of weakness."

To quote further: "I understand that a standing in any given subject is an indication of the knowledge which a given student has of that subject. If the devil has a knowledge of Latin which may be approximately indicated by a standing of 85, assuredly "give the devil his due." Should the student with a poor record as a student be over-estimated because he acts in harmony with the school at all times? If an angel makes 64 in algebra when the passing mark is 75, the angel should certainly receive the mark of 64 and should never be over-estimated for any reason."

To quote again: "In my opinion, deportment and scholarship are entirely different. A boy's deportment will undoubtedly have considerable to do with his scholarship. A boy of bad deportment is very apt to neglect his studies, and, as a result, will be low in scholarship, but I should consider it dishonest and dishonorable for a teacher to mark a pupil down in scholarship simply because he had not behaved properly. I should likewise think it dishonest and dishonorable to raise his scholarship because of good deportment."

Another says: "Deportment should not affect the standing in reading, geography, etc., any more than the standing in arithmetic should affect that of another study. I believe that the reason is apparent in the statement itself, i. e., standings are absolute in themselves. John's power over problems should be measured wholly by what he proves he can do with problems, without discount for the number of tacks he arranged for the teacher to sit on. His arithmetic marks are a measure of his arithmetic power, and no power on earth can make it anything else. The teacher

may refuse to treat with John, may refuse to give him the benefit of his standing, or any school privilege in an extreme case, but she has neither right nor power to give a lower mark in arithmetic than she knows to be the measure of his power, because of ill conduct. She may dishonestly mark him down or may do so ignorantly or through blind prejudice she may, or if not very broad she will, mark him down unconsciously. Deportment is, however, a part of the standing of the pupil, if not of his arithmetic, and as an estimating of the pupil's deportment is helpful to the teacher and to the pupil in securing good conduct and in doing the greatest work of the school, building character, it is very appropriate to estimate the deportment and make it part of the standing."

Again: "Replying to yours of December 12, my idea of a square deal is to give a pupil exactly what his class record entitles him to so far as relates to the required knowledge of the subject under consideration. His deportment is another matter. It may not be the best for the time being, but he may reform."

Quoting still further: "I hold that a pupil's deportment should not be taken into consideration in grading him in any of his studies. A grade in algebra should be a grade that represents as truthfully what the pupil has done in that subject as the teacher can express it. It should not be based partly on his work in algebra and partly on his behavior, his punctuality or his success in other studies. If these other elements are considered, the grade does not give the parent accurate information but misrepresents the pupil's work in that subject."

Thus we have the opinions of men and women whose sincerity is beyond question, which differ very materially. As was said in the beginning of this article the solution of the problem was too great a task for the writer. The differences of opinion have not cleared the clouded sky. The only suggestion made by way of compromise was to consider it only when unsatisfactory. This, it seems to the writer, would be the major part of the time in most schools. The need of moral training is evident. The renaissance is upon us. Let us hope that the man of the hour is here and a plan is forthcoming. If this plan should seem plausible and though it should permit misconduct punishable by lower standings, let us hail it with delight. If the business world demands good behavior and our schools prepare for business, let us apply business methods to our schools and hope to meet the demands of an enlightened people in an enlightened age even at the expense of what seems to be a mixing of oil and water, a changing of old plans.

All hail the improvement of our school children's morals, no matter what else may be affected if not too seriously.

THE FUNCTION OF THE HIGH SCHOOL.

SUPT. FRED H. HANKINS, LINTON.

Although the phases of education are various, the purpose is a single one; namely, the perfecting of the individual human being to the extent of his capacity for development. Plato was not far from the ideal in all education when he said, "Education is the process of giving to the body and to the soul, all the beauty of which they are capable." The idea that the individual belongs to the state has passed away and, in its stead we have the broader idea that the true state exists for the individual. Indeed, what other reason could we give for the existence of the state? Is not the success, the strength, the prosperity of the state, measured by the degree in which it serves the needs of the individual? The well-being of every individual composing a state is indissolubly connected with the well-being of every other member. Social interests are reciprocal. It is through the association with his fellows that the individual discovers his strength, his capacity, his place in society and his happiness. It must be so, now and always—for man is a social being and taken alone is weak. Individuals have attained their highest development through the institutions of the family, the church, the school and the state. The community, on the other hand, can attain its highest degree of perfection only when every unit gives it his strength and activity. The greatness and the perpetuity of our nation depend upon the opportunity afforded every individual for development. Our public schools occupy a very conspicuous place among the institutions that make for our greatness as a nation, though it may be questioned, I think, whether its contributions have been and are at the present time, fully recognized and appreciated. The spirit of free institutions is incompatible with restrictive educational opportunities. For this reason, we believe that the maximum limit of free public education should be determined by public opinion; and its minimum limit by the statute.

What place does the high school occupy in our educational system? If we examine the early history of the high school in this country, we find that it first existed for the purpose of preparing the student to enter college. The New England grammar school after which our high school was modeled, had for its function the preparation of the student for college.

More recently, however, within the present generation, there has been a marked reaction in this respect. The tendency has been to make the course more practical, more utilitarian in its training. The extension of the elective system in the high school naturally brings with it the tendency towards early specialization. The problem, as it comes to us at the present time, may be expressed by the question: Is the high school an end in itself, or is it a means towards preparing for further development?

The needs of the people at the present time answer the above question for us. The high school must be both a means and an end. Each step in education should give to the individual that which is most appropriate to his development at that particular period of life; and in doing this, it would prepare the way and make possible the greatest further development. This further development may take place in or out of school. Each stage of life in each individual has its corresponding latent power in some direction. In so far as education brings out this latent power and makes that stage of life significant, it may be considered an end. In so far as it prepares the individual for further development it is means. It is unfortunate to the cause of education for any person who cannot see the whole field, rather than one small corner of it, to engage in the profession of teaching. Surely, the person placed at the head of a secondary school should be broad minded and christian enough to see the whole in its relation to its parts and to adjust the course with the idea of the fullest development of the individual as an end, rather than the idea of the popularity of self.

In a discussion of the functions of the high school, its relations to the elementary schools on the one hand and to the colleges or universities on the other, is an important consideration. The high school is not a thing apart from these in our educational system. It is simply an organic part of the system. All the parts in this system do not articulate perfectly and there is bound to be some overlapping and falling short. To make articulation perfect, each part in the system must connect with the part from which it receives its students. Thus it becomes necessary for the high school to take the pupil who has completed the course in the elementary schools satisfactorily. Whatever defects there are, whatever immaturity, whatever power to study, whatever ability to think, these pupils must be taught; their weaknesses must be found out and strengthened, their immaturity must be considered and met, they must be taught to observe accurately, to think clearly and logically, to work diligently, to will to do the right thing and to do it. In vain we may complain that more should have been done in the elementary schools. It were better to take up the work at the line of their advance and say no more about it. In a like manner, after the high school has done its best for the youths who, for four years, have given their lives to the work of educating themselves under its guidance and direction, submitting themselves to the disciplinary training, pursuing the courses of study offered, exercising their intellects, cultivating their will power and quickening their consciences; the gates of colleges should, upon satisfactory credentials, stand wide open to receive them. It should not be necessary for the high school to offer any special courses for those desiring to attend college. The work of the elementary school is not to prepare for the high school; the work of the high school is not to prepare for the college; but the function of both is the training of the faculties and the development of the individual pupils to as high a standard of excellence as their natural capacity, age and environment will permit. Incidentally, the elementary schools do prepare for the high school and the high school in turn prepares for the university or

college. Why should the high school adapt itself to the entrance requirements of the college or the university when not more than one student out of ten who enters the high school ever finishes college. Neither the college nor the university has a right to dictate to the high school what its course shall or shall not be.

The high school trains the boys and girls at the most critical period of their lives; the period of adolescence. An increasingly large number of young people is entering our high schools each year. These boys and girls come from homes and environment very different in character. They come into the high school groping to find their place in the world. The high school must discover their individual interests and aptitudes, foster them, and create new interests. To offer a single inflexible course is almost sure to produce starvation in some, to drive others to the tables of the business college, or what is infinitely more unfortunate, to the poisons of the streets. The high school course should be flexible and should open to the adolescent a variety of possibilities. The high school teacher must study the material committed to his care, must discover the youth's tendencies and guide him in the selection of his course, otherwise we should have caprice run wild.

With the Adolescent's entrance into the high school or thereabouts he enters a distinctly different period of life and the methods used in teaching him must be adapted to this stage. The methods employed by the teacher in the elementary schools will not be successful in the high school. The uncritical receptiveness which characterized childhood's learning has disappeared and the youth is ready to challenge and investigate. This should be encouraged. If the student is to be trained to think, he must have something to think about. That is, something in which he as an individual is interested. What subjects interest ordinary boys and girls? What subjects occupy their thoughts when they are not required in the preparation of their lessons? The youth is not very different from the child in this respect and we know that the child is interested in things and human activities. What subjects deal with these? Plainly, literature, history, economics, sociology and science. Boys and girls naturally seek this class of subject-matter. Think of the number of boys who seek diligently for books on electricity. Great stacks of history and literature also find their way into their hands without compulsion.

Our boys and girls in the high school today are to be the leaders of the nation tomorrow, and still, in view of this, there are those who will designedly shut them out from the world and busy them with problems and questions which are absolutely remote from present day interests, make them learn mathematical formulae which not one out of fifty will ever use directly or indirectly. All this is done to train them to think. The only way to learn to think is to have something of interest to think about. If we merely wish to give him something difficult or complicated why not give him chess? The course in the high school must be adapted to the needs of the people at the present time. These needs are far in advance of what they were when the high school was first organized. The variety of occupations which the youth of today may enter is in-

definitely greater than in Washington's or in Franklin's time, so must the curriculum of our high schools be widened to include subjects which were undreamed of a hundred years ago. Statistics show that only a small per cent of the pupils who complete the high school course enters the professions. Most of our high schools administer to the needs of these few, rather than to the needs of the many who are to enter other lines of work. How about the boy who is to become a stone mason, a blacksmith, a carpenter, a banker, a bookkeeper, a machinist, a musician, an artist, a sculptor, a farmer or a printer? Should the high school in any way meet the requirements of these people? Surely, if our high schools do not fill this need, they fall short of one of the great purposes for which they exist. Surely they should not provide for the one class and leave the other classes to shift for themselves.

Does the high school draw as large a percentage of pupils from the community as it should? Does it hold a sufficiently large percentage of those whom it draws? How are we to account for the vigor of the business college? Plainly, this vigor shows a lack of something in the high school. Most students who leave the high school do so because they do not like to attend. Either they are unable to get the subjects they desire or else the methods repel. The youth resort to the business college to get what they have a right to expect, but cannot get, from the high school. Business and commercial courses are very popular wherever offered in the high school course. While encouragement and advice should attempt to cause the pupil to take up other subjects and complete a full course, yet we believe the commercial branches' should be allowed. One subject taken is often sufficient to enlist the pupil for the entire course.

The high school, we believe, should ever be an institution standing for the development of liberal scholarship in a community, but it must not fail to offer opportunities to all who can profit by advanced instruction.

The high school must not neglect to guard and promote the physical health of its pupils. This will demand a careful adjustment of the amount of physical and mental work each individual should undertake. All must be helped to find and induced to take a sufficient amount of recreation for the proper development of the voluntary muscles, which should be so trained as to produce ease, economy and grace in body movements. Athletic training naturally comes in for discussion at this place. While athletics is becoming more and more popular in our high schools, and for good reasons, too, yet it does not provide for the physical training of all the students. In fact, only the few who do not need it are provided for in this way, and these few are often overtrained for the amusement of the others. Physical culture must be provided for all. Gymnasiums must be equipped; better still, each high school must have acres of ground in connection with it, where all will have an opportunity to indulge in the games suited to their individual needs and inclinations.

Physiological instruction should also contribute to health. This does not mean merely memorizing the names of the bones in the body will aid in this. It must be taught practically in connection with life and life activity, the noon lunch, hours of sleep, ventilation, periods of work and recreation, lighting and heating of the building, formation of habits, etc.

The state, through its high schools, should provide culture and training for all of its youth. The notion that things which are utilitarian and those that are cultural are entirely different should be put aside. Any subject that gives knowledge, puts one in touch with and in sympathy with civilization, makes one broad-minded, gives one breadth of interest, makes one interesting and likable, refined and useful to society, certainly has a cultural as well as a practical value. True culture means a developed intellect and refined feelings, and deals with morality as well as with things intellectual. While culture may be gotten from a study of Greek and Latin, it may also be gotten from constructing a study table or a book-case. Anything which is closely connected with life's interests affords culture. No subject has a place in the curriculum for its formal discipline alone. The facts themselves should be of sufficient value to justify their study. The mind grows by what it feeds on as well as through exercise. We may teach dead languages, but the teacher and the method need not be dead. On the other hand, biology may be so taught as to stifle spiritual growth.

Breadth of interests must be cultivated. "But," you say, "that would be utilitarian." However, utilitarian does not necessarily mean mercenary. By utilitarian we mean simply preference for the useful rather than the useless. Who does not prefer the useful to the useless? The engineer, the artist, the inventor, the architect, the railway superintendent, all utilize stores of imagery in developing their various plans. Is not their work worthy of our highest esteem?

Moral training must not be neglected in the high school, for, after all, therein lies the greatest service that the school can possibly perform for its pupils. The moral training of the youth is a work in which the parents, the church, the state and the people in general, play an important part as well as the teacher in the school. Though the teacher be successful in every other phase of his work and fail to develop in his pupils that love for truth, that true manliness and true womanliness which are so necessary to success in any field of work, our verdict must be condemnation. In our struggle for intellectual and physical health we are apt to neglect the moral health. But, are we to have text books on moral vices and virtues? No, the teacher must be the text book. The power of example is the greatest force in all education. Horace Mann has said: "It is not within the power of the mightiest nation to prevent bad men from doing wrong. The only sure way to prevent wrong doing is to cease the making of bad men." Surely our educational system, throughout, is not doing all it is capable of doing towards developing a high type of moral character in the rising generation. The personality and the influence of men and women who are in the environment of the youth are surely the greatest factors in education. The course of study, the paper curriculum, which every new principal "revises," is a secondary matter. The all-important thing is to have great souls, consecrated to the work, which breathe out life to all with whom they come in contact.

OUR ATTITUDE TOWARD VOCATIONAL TRAINING IN THE HIGH SCHOOL.

C. C. GRAY, M. A., SUPT. CITY SCHOOLS, GRAFTON, N. D.

The first word in the topic of this discussion, which was formulated by the program committee, not by the writer, would imply the assignment of the part of voicing the consensus of opinion held by the schoolmen of the state on the question of deliberately shaping high school instruction so as to serve the particular demands made pressing for specially preparing boys and girls in their schooling along lines of study that will definitely qualify them in the beginnings of the various life vocations which they will be respectively identified in after they shall have finished their high school study, and shall have entered upon the serious work of life's activities. This paper, however, claims title to no such representative province. The opinions of our excellent schoolmen of the state, invaluable as they would no doubt prove to be at the time of this writing, have not been solicited. The conviction being that these opinions, pro and con, would probably be quite thoroughly learned, and that opportunely enough, at the time of the discussion itself. The farthest reach of representation, therefore, which this article may rightly claim is that of expressing the sentiments of the writer only, on this pedagogical question which has of late so insistently become the early morning challenge call to conflict from the vantage ground of some of the notable eminences of our big northwestern prairie plains. If out of the obscurity of the lowland shadows there shall come a far distant answering call; as far as the answerer now knows, no more sanguinary melee need be anticipated than that occasioned by one against the impact of a possible many; and yet he finds himself not a little in uncertain conjecture as to the probability of his finding a supporting comradeship when the place of rendezvous shall have been reached.

This topic brings on a discussion which has of late grown out of the very much mooted and variously experimented question of schooling boys and girls from the basis of granting a very wide and liberal privilege of electives. Having grown out of the latter question, it is not identical with it, but seemingly is, rather, a more extreme and specific putting of demands concerning what under the former question constituted a general tendency in its purpose. Just what are the demands now being made by the advocates of vocational training in the high schools of the country will be evidenced in the wording of their object as given in the recently issued preliminary report of the Committee of Seven of this state, to wit: "The vocational people, on the other hand, demand that the curriculum take cognizance of the future vocation of the pupil, and make a fair provision for the distinctive principles, and, as far as possible, for training in the technique of that vocation."

The voicing of the above demands as the purposes of the high school educators of young people presupposes a condition of mind and a stage of maturity which, in the opinion of the writer, are comparatively but very unusually reached by boys and girls of high school age. It appears to be the exception that a youth entering high school has found, or is really prepared to make, the choice of his permanent vocation in life. Such cases do occur, but they would seem really to be, comparatively speaking, exceptions; and that such would be the condition is no less, it would seem, than should be expected of children of fourteen and fifteen years. Just at a time of life when all the multitudinous vagaries of mind and disposition of childhood are but assuming the mere beginnings of crystalization into what to the boy are the uncomprehended formation of character elements; just when the boy of a year or two ago has begun to sense the evolutionizing forces of oncoming youth and later young manhood, with the startling and disconcerting revelations of preheralded maturity, the initiatory impulses of vacillation and change, and distorted pictures of the near viewed perspective in the personal foreground of his life's forshortened vista—just at this time in the growth of the boy, how is it possible for the serious minded scholar to insist upon his claim to a sound psychological basis for his decree that boys of this age are to make the important choice of a permanent vocation in life? This is a period in life when change, instability, impulse hold sway in the developing personality; when such a thing as permanence in anything is well out of accord with the ruling forces of character thus far reached in the evolution of the boy. Response to stimuli, from without and from within, is as changeable as the stimuli are various and, to the boy, insistent. Notions are formed and held until the changeful taste is surfeited and palls, and another tendency-forming food with new and untried elements is appropriated in satisfying substitution. As the boy lives, moves and has his being in the present, as in the light of his recapitulating the race, it is perfectly natural that he should, this latest assumed notion becomes for the time his ruling passion, to dominate him until a future acquaintance with previously unknown factors of influence results in his abandonment of the former imagined purpose—nay, real for the time—and his proclamation of the new.

This is not an attempt at formulating the characteristics of an imaginary boy. It is not intended to be a mere speculation nor theory. It is thought to be a partial and general mapping out of the characteristics of the real boy as boys go in general—and it is for the boy in the great majority that our public schooling must be directed.

Let my auditors but put to themselves the test as to their now being engaged, as schoolmen, in the vocation chosen by them at the age of fourteen or fifteen years and held through their later schooling. That such a choice might very appropriately have been made by a fourteen year old boy it will no doubt be admitted, but the guess will be ventured that it was not so made in many instances, at any rate, of the total number. Or let them cast their minds in recollection over their youthful years subsequent to the high school entrance age, and recall the successively different vocations that were chosen at different times, each of them

considered at the time "a cock sure thing." Suppose that their public high schools had been equipped for specific instruction necessary to these variously adopted vocations, and had accommodated themselves correspondingly to a changeable series of treatment in vocational training, what super-abundant profit would have accrued more than was that profit that actually obtained from the training received? Determine, too, whether such instruction would, in any great probability, have resulted in final qualification for one of these chosen lines as a life business; or whether, in case of an affirmative finding, a verdict would now be returned affirming the results as a wise and advantageous consequence.

Believing, with Patrick Henry, that record of the past is a legitimate means of judging the sanity of the present and of formulating schemes for the future, the writer lately interviewed a goodly number of citizens of his home town to get from them whatever testimony should be offered relative to the above indicated data concerning their respective present vocations. In these interviews, bankers, lawyers, physicians, dentists, druggists, printers, merchants, blacksmiths, etc., etc., were visited. Only one man was found who is now engaged in the business of his boyhood's choice. Quite a universal testimony was given to the early holding of boyhood notions of future vocations, as also to the repeated changing of those notions; and nearly all stated their suppositions that no greater surprise might have been given them in youth than to have been shown that their future vocations would be the respective businesses now engaged in. A very general opinion was expressed that life vocations are taken up very generally, especially by non-collegiate young men, more from the combination of current circumstances than from deliberate choice or from any specially determinative inclination. It seems to be the consensus of opinion of these men, too, that it should be the work of the school to give young people as thorough a general schooling as possible, and to leave for later determination the definite selection of a permanent vocation, and the special training needful for it. Nothing of greater import is advanced for this little home study than that the data thus offered by the business men of the writer's home city will probably be found very largely representative of the opinions of business men of other communities. Neither is it argued that conditions which determined the present vocations of the past generation of boys might not be improved upon, nor that the things which impelled the past generations of youths in finally landing in their present life vocations must of necessity not be subject to modification for improvement. However, so far as boy-nature enters into the computation, we must all grant the probability of the recurrence of consequences in the succeeding generations; and just this is here contended, that much of the cited conditions result from the aforementioned psychology of youth.

In order to get a picture of the vocational situation in the minds of the boys and girls of the high school at this time, and to ascertain whether the represented status of the boy and girl mind of the past at all represents that of the present generation, the writer very recently devoted some special effort in inquiry of this nature in his home high school, which has an enrollment of thirty-seven boys and eighty-six girls,

grouped by years as follows: Ninth grade, forty-four; tenth grade, twenty-eight; eleventh grade, twenty-nine; twelfth grade, twenty-one. In this school, the average age of the ninth grade boys is a little over fifteen years, and that of the girls is fourteen and one-half years. To the question of how many now feel that they have chosen their life vocations, the response was as follows: Boys of the ninth grade, none; of the tenth grade, two; eleventh grade, two; twelfth grade, none. Girls of the ninth grade, none; of the tenth, none; of the eleventh, eight; of the twelfth, seven. Of the two tenth grade boys, one chose farming; the other engineering (mechanical, electrical or civil). One stated that he had made his choice during the ninth grade work; and the other that his choice had been made earlier. One testified to his having already chosen a vocation and having changed his mind as many as four times. Of the two eleventh graders, both chose engineering, and both had made their choice during the present year. Of the eight eleventh grade girls, five had made their choice before entering high school, and three during the present year. Of the seven twelfth grade girls, two had made their choice before entering high school; two during the tenth grade; two during the eleventh; one during the present year. Four of these testified to having already made choice of vocation, but to having changed their minds as many times as once or twice at least.

To the question that if a choice of vocation were made imperative at this time, what would that choice be, only eleven of the ninth grade boys were willing to indicate a probable selection, and eight of the girls. No additional tenth or eleventh grade boys than before were willing to state a probable selection, though eight of the tenth grade girls, and thirteen of the eleventh grade ventured a choice. Of the twelfth grade boys, four indicated a probable selection, as did twelve of the girls. Of the eleven ninth grade boys, four indicated farming, one medicine, one law, and five engineering. Of the eight girls, three indicated medicine, and five teaching. Of the eight eleventh grade girls, two indicated domestic science, and six teaching. Of the four twelfth grade boys, one spoke of medicine, one of law and two of engineering. The twelve girls of the twelfth grade indicated domestic science, with eight naming teaching as a sort of secondary matter.

It is felt that the significant feature of the above data is the showing of uncertainty in the minds of these high school pupils, at any rate, on the thought of a life's vocation; and if, as is believed, like investigation in other high schools shall disclose a similar uncertainty in kind, if not in degree, it is felt that the contention that high school pupils are not in position seriously to choose a life-work will be decidedly supported, as, in truth, the psychology of youth would seem to foretell that it would be thus supported.

How, indeed, shall the vocationalists justify their demands that the high school pupil make a choice of vocation thus early, when even the college, as Professor Charles O. Denny, of Drake University, intimates, would have their young men postpone their choice of vocation till the sophomore year, believing that "there is substantial advantage in postponing the choice

of a group (of electives) till the Sophomore year, as the responsibility is thereby postponed till a time when the student is far more capable of choosing wisely." The trouble is that our American enthusiasm for doing and overdoing things finds a large field for display in the school-work of the land; when upon the exploitation of some "new method" or scheme in a legitimate sphere of action, perhaps, the cry is taken up and made the call of the legion, who finally stampede as a crowd, and strive to apply the "new thing" to everything in sight, often regardless of whether it is by nature calculated to stick, and forgetful, it would seem, of the caution that for the "new thing" in education to be applicable to the high school pupil, it must not only be justified by the principles of sociology, for instance, but must particularly find warrant in the sociology of the boy.

The present sectional furor for vocational training of high school pupils seems to be in form the further step taken by its advocates from the less radical demands for large elective privileges—a step that might logically be expected, when we recall the tendency of enthusiasts to carry the scope of almost any departure to such lengths as the advocates of a formulated "new thing" in method or matter very probably never contemplated, and try to make it apply to a class which the movement does not fit. That this vocational training, as characterized by its supporters, is sound, there is no dispute; but to the expediency of extending its procedure down below young manhood into the boyhood of the high school pupil, there is decided dispute. To carry it on in the post high trade school, industrial school, or continuation school, would be quite another question and a vastly more defensible one. Then, too, it is but mildly conservative to recognize that possibly early vocational training might be expedient in certain congested centers or in some of the older and crowded sections of the land without its being equally expedient for all boys and girls everywhere and in any and all sorts of situations.

But the great cry of the day is for the high school to "fit for life," so up rise our stampeding enthusiasts with shouts of contention that to "fit for life" we must turn our high schools into trades schools regardless of whether the boys and girls therein have arrived at the proper stage of responsibility for correctly choosing a trade or profession. What is it, anyway, to fit a boy, as a boy, for life? What does the business world desire in a boy as a beginner in a business employment? Inquiry affords the information that business men would like to find in a boy about the following qualities: Honesty, industry, trustworthiness, cheerful and persistent self-confidence with egotism, accuracy and neatness, manliness, truthfulness, clean habits, adaptability, resourcefulness. Let a young man prove of such a character, and any manager of any business concern of the land will guarantee the young man's usefulness, and success. With such qualities developed, as far as boy-nature will permit their development, the rapid and effective learning of the technique of any business or profession may be confidently expected. This is the business of the high school—to do its best in developing and establishing such elements of character in its boys and girls. Thus equipped, the young man is exceedingly well "fitted for life."

The demand of our high school, except possibly of some of our larger high schools, that they turn themselves into trades and professions schools is demanding an impracticable procedure, even aside from the question of boy psychology. Neither the obtainable furnishing of our high schools in departmental equipment and teaching force, nor the time in years of its course, lends itself to the training of boys and girls to proficiency in the professions or trades. The best that could result in such attempts would constitute but a dawdling insufficiency of preparation in those undertaken. It would seem, therefore, that the best service that can be given, both to the pupils and to their future occupations, is to do all that can be done in schooling young people to grow up into young men and young women of the reliable and serviceable characters, having the intelligence indicated by the qualities spoken of above. The high schools will thus be providing the universities, trades schools and technical schools most excellent material for making over into vocational efficiencies; and to the business world, young beginners who are very advantageously "fitted for life."

This discussion does not for a moment question the validity of the judicious use of elective privileges, nor of the employment of manual work in the grades and high school. These, it is felt, are exceedingly valuable modes of interpretation and expression, and invaluable aids to education. These are, however, questions of school policy quite apart from the question here under discussion. In the declaration of a positive disinclination to any fetish-like worship of any subject or group of subjects now included in our high school curricula, it is yet asked in all candor wherein the kind of work that we are now doing so greatly fails of attaining our wishes to give our boys and girls an education, through matter and method, which at once contemplates them as boys and girls, and affords the means of developing their characters and abilities into the elements of a really serviceable "fitness for life."

MANUAL TRAINING IN THE HIGH SCHOOL—WHAT? HOW MUCH.

SUPT. E. R. EDWARDS, MINTO.

Ladies and Gentlemen: Believing with the Committee of Seven "that a system of education should be adapted to the needs of the people for whom it is intended" and that courses of study should be rearranged "periodically to meet the changing needs of the age," I am very glad to bear testimony to the success and practicability of manual training in the small high school of North Dakota and to commend this subject to your cordial consideration.

It is not the province of this paper to discuss the work in the grades below high school, but I wish to say that, in my opinion, the work in manual training in the grades should be preliminary to the courses mentioned later in this paper. In my judgment, we would lose rather than gain by giving bench work earlier than grade eight. There are at least three good reasons for deferring this work until the boy reaches grade eight, or better high school. First, we must keep the boy in school as long as we can and the practical work usually appeals to him and his father. Second, the boys below grade eight, anyway, and often those below high school are too immature to use a man's bench and tools and do a man's work. Third, most schools in North Dakota will find it inexpedient to offer more than two years of advanced manual training and at least one-half of this work should be done in high school, and in many places all of it should be reserved for high school work.

I also wish to state that my experience with this work has been in a high school enrolling just about the average number of boys enrolled in the first and second class schools of the state, exclusive of Fargo and Grand Forks. My limited experience leads me to have more faith in the high school work in this subject than in grade work.

The primary and vital importance of intelligence to good citizenship naturally led to concentrating the efforts of educators upon intellectual education almost exclusively, until recently. Likewise, the belief has been prominent in the public mind, until recently, that public school education should be entirely mental; in fact, that it was the teacher's business to "instill knowledge into vacant brains." This was a most erroneous belief, for no child is properly trained unless due attention is given to his physical, mental and moral natures. The general public seems now to be alive on this issue and the long neglected manual education seems to be coming to its own. Although physical education has far more utilitarian value to both the child and the state than mental, as yet very slight attention is given to it in our public schools of the west. The vast majority of our young people are destined for lives of toil. Therefore, in our schools, the cultivation of habits of regular work, manual and industrial

training, should be practised as a part of the daily routine to develop such facility as will enable the graduate to learn his trade more quickly. (should he choose a trade) when he begins to work.

Manual training is not a panacea for all of our educational ills. No one thing can be. But I do firmly believe that manual training is one of the several new and good courses which we can profitably incorporate into our secondary education in North Dakota, to replace some of the things we now compel boys to study out of deference to precedent and tradition.

Our North Dakota high schools, being public institutions, must, if they are to justify their right to exist and their title to special financial aid from the state, do less toward educating the few who may attend college, and do more toward educating the many who may not. One of the very best things that a secondary school can do for its pupils is to enable them to discover in what direction their talents lie. Therefore, every school should offer as wide a variety of courses of instruction as possible. Many of our boys and girls must, and all of them should, eventually earn an honest living in some honest and honorable mechanical art, in business or in some profession, hence an early discovery of latent talent in any direction is of inestimable value. Therefore some systematic and thorough training of the motor activities would seem to be very much in place in our high schools along with cultural and business courses. We must not expect a high school to so train a boy that he will entirely escape the apprentice stage in later life (that would be going too far on the technical side), but we can reasonably expect to so train him that he will have a pretty definite notion of what his hands can do. One of the greatest faults in our American schools is that they take little or no account of the probable future of the pupils. Whether a pupil becomes a mechanic or a preacher, a statesman or a teacher, knowing how to plane a board or make a box that a drayman wouldn't refuse to haul, certainly would not count against him. It is no more than just and right to afford the high school boy a chance to ascertain his limitations in this direction as in the more purely mental work.

It is undoubtedly the first duty of the school to train young people for future citizenship. But you can't expect to make the most desirable type of citizen out of a person who hasn't been trained to use advantageously both brain and hand, who hasn't enough practical knowledge, both manual and mental, to enable him to earn an honest living at all times. One of the chief defects in our young people today is that they do not know how to work with their hands and hence, have scant respect for honest toil. Manual training is one of the practical things which tends towards the development of the well balanced, useful citizen, and for that reason, it should receive marked attention in high school. Moreover, the school shop has some great advantages over the factory in the matter of developing boys. In a factory a boy may do more work in less time than in a school shop; because in a factory he does one thing over and over until he does it accurately and quickly, until he can work with machine-like precision. In the school shop the pupil is assigned a problem and works

at it until he has it satisfactorily completed. He then takes another problem and studies it and works at it until he has completed it. He is thus continually thinking out the problem before him and creating mentally what he is making with his hands. He is acquiring skill both mentally and physically. At the same time he is pursuing while in school a number of other courses calculated to improve his mental accuracy, and fit him for the duties and responsibilities of citizenship.

Since in assigning any pupil to a course of study, three things must be considered, his natural talents, the necessity for his earning a living before and after leaving school, and his probable future vocation, the work in manual training offered in the high school should be elective, but all boys should be urged to take the work.

Since pupils and classes of pupils differ in ability, accuracy and activity, the courses in manual training should be varied within reasonable limits to meet the conditions which arise.

A two years course providing for classes five days per week in forty-five-minute periods or equivalent, ought to be sufficient for the average North Dakota high school. This course should provide for a year of bench work and a year of wood working and cabinet work, or some forge work in the second year if local conditions will admit of such being given.

The equipment for the above mentioned work in wood is by no means expensive nor is the space required for it large. I believe both to be within the range of easy acquisition for many of our small high schools and for some of the larger ones as well. A room 24 feet by 24 feet, properly lighted and heated, will accomodate classes of twelve. A corner of the basement in many school buildings could be boarded off at very small expense. The room should be equipped with individual benches, two or three speed lathes, bench tools, and a complete set of general tools containing a number of duplicates of the tools most used. This equipment, all of good quality, can be secured, exclusive of cost of power, for \$200 to \$250.

We are doing our first year's work at Minto, this year. We are equipped for classes of ten and have three classes daily, each having a forty-five minute period, and the results are very satisfactory. We are giving a year's course of bench work, teaching the care and use of tools and the most economical use of material. Our benches, tools, etc., cost us less than \$180. Our lumber and hardware will cost us \$40 or \$50 for the year's work. But we expect to recover the cost of raw material from the sale of the useful articles our classes are making. In the sixteen weeks just past, our classes have learned to dress and true up lumber, (we use nearly all rough lumber, both soft and hard, as it affords more practical work), make the five common joints, make patterns, and work and cut lumber from designs, and they have made a number of useful articles such as match scratchers, necktie racks, towel racks, bread boards (in various shapes), and various other things as simple apparatus used in the laboratories. Of course no one boy has done all of these things, because some are more apt and work faster and more accurately than others.

In answering the question, how much of manual training shall we give our high school boys? I can only say, "As much as your teacher can have the classes do along the lines indicated above in a two year course and do it well." Of course training is the essential thing, hence no poor work should be accepted, and "Quality, not Quantity," should be the motto of this department of the school as of every other part of it.

In the matter of what shall be made, I should say make what your patrons will buy. Because unless we can make our school shops pay the expense of the raw material used, our work cannot be a great practical success. A self sustaining shop will convince the most skeptical of the value of manual training.

These considerations lead me to the final point, the most important one of all, viz: The teacher.

In manual training, as in any department of school work, the teacher is the most important consideration. Splendid equipment, excellent rooms, the finest material, the most carefully elaborated course of work, must fail to give good results unless the teacher is earnest, conscientious, industrious, and a man of character and desirable personality. It is far more important that the teacher of manual training have the correct viewpoint, than that he be a skillful workman; more important by far that he be a *good* teacher and a *good* man than that he be a good mechanic; more important that he be anxious about the human character resulting from his instruction than that he be anxious about the finished product of his shop. The teacher of manual training must develop not only skill in the use of tools and wood and iron, but must also develop habits of industry, honesty, thoroughness, a high regard for toil, and pleasure in it. The successful teacher of manual training then and the one practical in most of our high schools, must be a man of education and culture, for in most of our schools we must combine work in manual training with other subjects.

With several of our institutions of higher learning preparing teachers for this work, we should, in the near future at least, be able to supply our schools with such teachers at reasonable salaries.

In view of the fact that manual training is practical in all high schools and practicable in many in North Dakota at the present time; in view of the fact that the present condition of state aid admits of the adequate equipment of departments of manual training in many of our schools without local expense, in view of the fact that this work and other high school branches can be successfully combined under one teacher, and in view of the fact that an enlightened public sentiment all over our land seems to be demanding from us as educational workers, a more just and practical secondary education, it would seem that the time has come for North Dakota to take advanced ground in the matter of vocational education and forestall the advent of the purely trade school in our state.

THE HIGH SCHOOL CURRICULUM—THE DIRECTION OF
READJUSTMENTS.

SUPT. G. R. DAVIES, AMENIA.

The topic assigned to me—that of the high school curriculum with reference to readjustments to meet the needs of the times—unfortunately requires me to reopen that vexed question of vocational vs. general education, already so thoroughly discussed. Yet I hope not to trespass upon the ground already covered, since I wish to call your attention to a viewpoint that has not been extensively exploited, namely, that of society as a whole. For I believe sociology has conclusively proved that we can find no basis for ethics, politics or educational theory in a consideration of the needs of the individual as such, except as he is seen as a part of the unity called society. The touchstone of a policy is its bearing upon the evolution of human society, not in its bearing upon the success or failure of a particular individual in the competitive arena of modern business. As Small puts it, the test is in the relation to "the ongoing of the social process." I shall make no apology, then, for attempting to lay the basis of my argument in sociology.

A profitable view of society to take as the basis of such a discussion as the present is to consider it as the resultant of two antithetical forces, which for convenience we will here call the specializing and the democratizing. The analysis is really the same as that of Baldwin when he distinguishes the particularizing and generalizing forces, except that here we are taking the plane of sociology proper and one of social psychology as was Baldwin. By the specializing tendency we mean the organizing process which leads to division of labor and the formation of classes or even castes. By the democratizing tendency we mean such a socialization of the knowledge resulting from the division of labor that the individual attains to a broad view of the activities of society and consequently exercises a correlating or governmental control over them.

Ancient society early developed a considerable degree of specialization. We cannot here consider the cause, but we may note that such a nation as Egypt was a plexus of differentiated groups organized into a great co-operative process. There were kings, nobles, priests—that is, classes specialized for control, the latter also functioning to some extent as educators. In addition there were merchants, tradesmen, interpreters, overseers of labor, landlords, farmers, herdsmen, boatmen, artisans of various crafts, as weavers, carpenters, potters, joiners, smiths, skilled metal workers, glass-workers, etc. Other groups were specialized for protection and aggression. There were officers, horsemen, charioteers, bowmen, spearmen, slingers, armor-bearers, etc., each more or less skillful in his particular line. Specialization thus early begun has advanced to correspond with the degree of culture attained. Modern civilization is a bewildering complexity of divi-

sions of labor. Production, distribution and exchange of economics goods are carried on in great co-operative, minutely subdivided groups, netted together by systems of finance, and controlled and co-ordinated by highly specialized enterprisers, bankers, captains of industry and capitalists. Now as in the past conditions render it necessary to individual success in any calling that a person limit his horizon somewhat strictly, otherwise competition will eliminate him. These features of modern life are familiar, and need no further emphasis. They form the sociological argument for vocational education.

Dr. Giddings in his works on sociology has shown the importance of consciousness of kind. A considerable degree of like-mindedness is necessary to healthy social action. Specialization easily reaches a stage where the social bonds of sympathy are cut, because there are no longer common fields of interest. The disease affected the controlling groups the most seriously, since the pull of individualistic motives there makes itself felt the strongest. The rulers, or the classes that supervise distribution, appropriate to themselves an ever increasing share of the product of the common labor if the association is industrial, or of the power and booty if it is military. Other groups of society are swung from their field of social service into props of the controlling power. The priestly and educative groups form a partnership with the growing tyranny and become priestcraft. In similar style today, to quote Small, "it is not difficult to make out this monster driving wheel of massed capital always to a certain extent deflecting the other interests within the state." When the humbler groups of the co-operative process begin to question the wisdom of the administrative and legislative departments of the common life, they are told not to presume to judge of the superior wisdom of their betters. Let "each man tend to his own lawn," mind his own business, look after his own specialty, and all will be well. Hence arose divine rights of kings or of property. The controlling classes unrestrained harden into caste. The nation stereotypes, and progress is at an end. The lower orders are held in chains of military control and fostered superstition. Aristocracy alone holds the legal power to release the forces that make for progress, but it does not dare disturb the equilibrium because an awakening of the people would hurl it from its seat. In such a situation activities that should make for progress vaporize into thin air. Philosophy chases rainbows of ultimate reality, schoolmen blow soap-bubble abstractions that still pass for learning. Theology grows other-worldly, and creates speculative dogmas. Each ruling specialization, unconsciously knowing its own impotence, becomes jealous, and persecutes the unspecialized mind that dares break into its preserve. The common man must accept in unreasoning faith that which is prepared for him by those who are supposed to know better than he himself what is for his own good.

When the individual mind is thus a specialized fraction of the world of knowledge, all groups of the co-operative life suffer degeneration. Fraud and chicanery are at a premium because there is no intelligent public opinion to check them. To quote Dr. J. A. Smith, "the ignorance of the masses was in the past as it is now the main reliance of those who wish to per-

petuate minority rule." Politicians who can fool the people replace statesmen who would lead the people. Lawyers in the name of justice palm off sophistications that sanction the strong, and prove that "whatever is, is right." Medicine becomes quackery because the quack can gain a following by using means which a true physician would scorn. Captains of industry adulterate their products because an ignorant demand gives the trade to the unscrupulous. Labor, finding itself frowned upon in its efforts to think the problems of society outside of the uncongenial, conventional grooves, becomes brutalized and menaces the people. Any specialty that endeavors to proceed very far beyond the general level of public intelligence, is likely to reach unstable equilibrium. Further progress is impossible until public intelligence improves and exercises control over the various specialized fields. The expert may safely be a servant, a leader or a teacher to the public, but as a master he degenerates. Widespread general knowledge such as will enable the masses to check and control the expert is a social necessity.

Ancient civilization soon reached the deadlock due to specialization without democratization of knowledge. "My people perish for lack of knowledge," said a Hebrew seer. Occasionally the democratizing tendency made way for itself. The internal struggles of Judea, Greece and Rome were the breaking of specialized military and commercial castes; the height of power and influence to which these people rose is the measure of the strength of the new tendency. The Athenian democracy fell by reverting into a specialized controlling group impervious to the democratic demands of the Delian League. Rome democratized into a republic, but economic stratification rebuilt caste lines. The great center of the democratizing principle has been Judea. Reaching down even into the underworld of slavery, primitive Christianity evoked the divinity of the common man, and invited him to share with the Creator the management of the universe. Its aim was revolutionary. Says Lowell, "There is enough dynamite in the New Testament, if illegitimately applied, to blow all our existing institutions to atoms." The salt of the Gospel soon lost much of its savor, it is true, but it was renewed in its pristine strength in the Reformation movements, which were at heart economic and political, and it is coming to its own again in these days if we may judge from the writings of Campbell, Gladden, Matthews, Peabody, Rauschenbusch, and a host of others in all branches of the church. But the point for us here is that the democratic instinct working through theology has always aimed at imparting a sociology to the people. It has called the individual mind from the niche in which the specializing activities of society had imprisoned him, and has bid him become a whole man by attaining to a general view of the social process. It showed creation, the beginning of conflict, the rise of empires, and the power of the humble that eventually should break them. It judged the contemporary status of society and pointed forward to a consummation of the age. Crude as were its ideas, and narrow to our vastly broadened horizon, yet it built granite character that braved the fires of persecution, disputed with the learned and the kings, and in the end put down the mighty from their seats. And some such a process as that was just

what was necessary in order that society might grow. Monarchy puts forth its "twelve good rules" of industry and sobriety for the guidance of the lower classes. Baldwin has shown on what plane such maxims and proverbs spread. They appeal to the worldly wisdom that finds the individualistic interests best served by subserviency to the powers of the world. Of course they are true, but they are dangerous, fractional truths. They are outgrowths of the specialization spirit. The other half of these truths is that the individual must assimilate the work of the expert, so that in the end he becomes his own priest, his own king, his own captain of industry.

What are the characteristics of the age that is now making its demands upon education? The industrial revolution laid the basis of modern specialized industry, and the empire of business arose. As Small shows, the social struggle now is for constitutionality instead of monarchy in the co-operative industrial processes of the modern world. And in another correction he says, "The distinctive feature of our present situation is its exposure of the poverty of our concept democracy." Says Prof. Giddings of Columbia, "The man who does not know that in America we are in a fight to a finish between democracy and privilege is sadly misinformed." Says Ross, speaking in his new *Social Psychology of the American People*: "Today their idolatry of an undemocratic federal constitution, their reverence for irresponsible power in the form of an 'independent' judiciary, and their veneration of a common law at variance with certain needs of an industrial civilization are holding them back. In the march of peoples they must not only yield the banner of leadership to the younger societies of Australasia, but they ought perhaps to fall in humbly behind certain little peoples of old Europe—the Norwegians, the Danes and the Swiss." Harper's Weekly, speaking editorially of a man of nation-wide reputation and honor, says approvingly: "He is moreover an advocate of the notion that people's lives and conduct ought to be regulated by those who know better than they can possibly know themselves what is best for them here and hereafter." This is denominated the theory of the government of the people for their own good. the phrase, "government by the people," is conspicuously absent. It is evident that in our day the specializing, class-forming tendency has gone too far unchecked. As in the past, diffusion of knowledge of the world as it was and is and might be is the democratizing force that alone can meet the needs of the situation.

The public school systems of today are the outgrowths of democratizing tendencies. Privileged classes have seldom favored the instruction of the masses. Industrial education has been cared for by apprentice systems, or under the actual supervision of the master class. Authorized churches generally taught the lower classes to be content in the station providence had seen fit to call them to, and to serve reverently their masters and betters. The democratizing activities, by the nature of things, had to make headway against the organized forces of society, political and ecclesiastical. The development of the public school was in its beginning no exception. Governor Berkeley of Virginia expressed a universal ruling-class sentiment

when he thanked God that there were no newspapers or free schools in his province. New England, where the democratic spirit of the Puritan movement held sway, was the stronghold of public education. In later years the public school, as it invaded the middle states was supported by workingmen's movements and opposed generally by the property and other conservative interests. Says McMaster: "These demands were shocking to the clergy, the men of property, and the conservative members of the community." We learn that "Russell Comstock in October, 1829, harangued a large crowd from the steps of the city hall, Philadelphia, in favor of free public schools, and was arrested for disturbing the peace." Public education abroad has had to contend with the same forces. It was a part of the tidal democratic movements of the past century, and expressed the determination of the common man to escape from the narrow horizon which the specializing tendencies of society had assigned him to. The function of the public school, therefore, is democratizing, not specializing. It was not founded to supplement the apprentice system and to provide more efficient servants for the master class, but to provide masters for the masters, so that the mass might compel him that would be the greatest to be the servant of all. The school and the church are the two institutions whose purpose is to counterbalance the individualistic tendencies that specialize and build aristocracies.

The high school has aptly been called the people's college. While the elementary school has been able to do little more than give command of the tools of the intellect, the high school has brought the advanced knowledge, once the exclusive property of the ruling classes, measureably within the reach of the people; it is an instrument for socializing the written intelligence of the race. Besides, it deals with the adolescent, whose mind budding into maturity, craves variety, wide stretches of knowledge, and hates the detail of the specialist. Social conceptions, based on some knowledge of the history and ideals of the race, with some peering into the future, will find a ready response in the altruistic instincts of the adolescent, and will lay the basis for a rational morality.

A strong current of thought is today directed against the general work of the high school. Superintendent Dewar, three years ago told us that he had communicated with Mr. J. J. Hill relative to the educational situation. Mr. Hill was quoted as saying that in his opinion the high school should be given up, and the money saved devoted to more practical and thorough work in the elementary schools. Somewhat the same point of view appears in a very clever article in the November American Magazine. The writer scoffs at the high school curriculum, and points with scorn at the industrial inefficiency of the graduate. He advocates the segregation of the sexes, and early specialization. He evidently confounds physical and social heredity, since he regards the manual and brain worker as differentiated at birth, and not in part at least by the influences of environment. His ideal is individualistic; he approves of the aggressive, vigorous, animal type of character. A railroad president writing in Appeltons, as so Mr. Leslie M. Shaw in a speech before the alumni of Dickinson College, mourns the fact that the schools are doing worse than nothing

to alleviate the social conflict resulting, as he thinks, from the disposition of the public to gaze critically into the holy place of the industrial and financial expert. Professor Ross took up the cudgel for the sociologists and with more truth than politeness, said: "Mr. Shaw, who is a keen business man, speaks from a selfish and commercial standpoint. He scoffs at sociologists because they are preaching doctrines which are detrimental to both his pocketbook and private business interests." But it is not likely that Professor Ross has succeeded in checking the force of the opinion that would eliminate the general courses of the high school.

Suppose we lived in the thirteenth or fourteenth century and were to approach a practical, successful man, say a baron, with a request for his opinion on education. Would not he have said something to this effect: "See what helpless misfits you are turning out, armed with only a knowledge of Greek and Latin culture and a lot of speculative thought that reflects dangerously upon such sacred matters as politics and religion. See how they go down before my hardy retainers who have had not half the training. You should throw your ancient histories and your Greek philosophies out of the window. Give the boy something that will enable him to carve out a man's place in the world. Train him to wield a lance and to earn an honest living for himself and family by levying tribute on the traders. Besides, I am obliged to pay scandalously high wages now to get common soldiers. Give me men to fight my battles, men who will obey and not question. You might also train some of the boys as expert farmers and laborers to man my estate, since I am planning to discharge a good many who do not produce me enough profit. Be sure to drill them into habits of strict obedience, so that they will be immune to such follies as peasant rebellions and the religious fanaticism that opposes all established law and order. This is my opinion as a practical man. I give it free of charge because I love the public and want to do something for the starving population whom I cannot employ."

Yet the practical man would have been mistaken. What *was* needed was the general knowledge that finally filtered in from the resurrected classics and from the social spirit of the Hebrews. And perhaps today it might not avail for the mass of the people so much as some would have us think if we should flood the labor market with a superabundance of skilled laborers who knew nothing of history or the ideals of the race. If our analysis of present conditions is correct, it is the democratization of general knowledge that is needed to further progress, so that finally the plain man may be able to reduct the titantic forces of the modern competitive world to some sort of public service.

What has been said thus far has not been meant as a paeon of praise for the cultural studies of the present high school curriculum. Nor is it meant as an opposition to all specialization. Since education is a preparation for life it is cheerfully acknowledged that the particularizing tendencies as well as the generalizing should have a place, with the proviso, however, that the later the specialization for life work occurs, the better. But it seems to me that the specializing process needs far less attention than the democratizing, because individualistic motives are on the side

of the former. The central aim of public education should be to provide the pupil with as comprehensive a view as possible of the world of human activity, allowing something in emphasis of studies for the freely developing specializing tendencies of the child. From this platform we discard the conception of a catalogue of so-called faculties needing certain gymnastic mental exercises to train them. That might be well enough if we had an eternity instead of a few precious years. The work of acquiring real knowledge, and mastery of the tools of knowledge, will give mental gymnastics enough.

For convenience let us agree with Dr. McMurray and call geography, implying also history, the central study of education. Mastery of the tools of knowledge is of course, also implied. This centralizes well into one view the correlated activities of man. All other studies may be regarded as developing more completely various phases of this one central study. Here and there we dip analytically into our subject matter so that we may have types to interpret other material that we are forced to slight. But we are careful not to lose our point of view in the multiplicity of details. Like a visitor at a world's exposition, we might find it possible to spend our whole time profitably in one small section of one building, but if our aim is to attain a unified view of the whole exhibition we must pick and choose and correlate with discretion.

To expect the child to cover the whole field of human knowledge seems like a huge undertaking. In detail it is of course impossible. But as Professor L. F. Ward shows in his *Applied Sociology*, knowledge can be imparted in broad outline much more rapidly than it has been built up, because it can be given in the form of generalizations. This seems like a rude shattering of that idol of the pedagog's heart, the inductive method. Yet in reality we all follow Prof. Ward's idea, for we generalize from a few selected, typical data, using the inductive form merely as a pedagogical device. Prof. Ward also pertinently reminds us that the acquisition of real knowledge, presented in casual connections, is easy to the normal mind. He says that the knowledge which seems so difficult is generally not knowledge at all, but abstractions from knowledge that have lost their connection with reality. "Naturally," he remarks, "it is difficult to reason about nothing." The caution should be taken to heart.

If our guiding principles are valid, the pruning knife will have to take a good deal before we have an ideal curriculum. Latin and Greek, once the essential tools to the attainment of general knowledge, by their survival in the modern course furnish the social psychologist with an interesting example of the fossilizing power of custom. Of course this is not to deny that the dead languages have some value in certain specialized departments. Literature will be compelled to relinquish much of its so-called thoroughness—really a waste of attention on endless details to the detriment of real appreciation of the social values in literature. Science, also, will have to relinquish much of the specialist's detail. Mathematics which in the past have soared into the misty regions of abstraction will have to be brought back to earth, and kept close to practical applications in the industrial field. History will have to relinquish Henry VIII's wives

and other interesting gossip. What it may do in the way of explaining the present is too big a subject to enter upon here; mention might be made of a very interesting paper on this point read by Dr. J. M. Gillette of the University at a meeting of the North Dakota Teachers' History Association last spring. Civics will be called upon to show the actual workings of government, not the wordings of paper constitutions. And economics, which might be a field of most vital interest, will have to bid good-bye to the "economic man" and the warping influences of the capital-made Manchester school. It should emancipate the pupil from the host of hoary superstitions such as the fallacy of luxury and the doctrine of natural rights, which today prevent the public from entering intelligently upon a discussion of the economic situation. Nor will the courses in history and economics be complete until they allow the student to enter the dream-land of Utopias and compare the world as it is with what it may be.

A great deal that is proposed today in the name of vocational training, and much more in some directions than is proposed, may well be defended from the standpoint of general education. Vastly more in the manual line is needed for physical development and to interpret industrial processes. Considering the place that tools and machinery play in human affairs, we may claim that no person is mentally equipped until he has had considerable experience with skilled and unskilled manual work. The wider and more varied this experience may be, the better. The needle, shears, saw, hammer, and the more complex tools, in uses adapted to age and sex, should have a central place in every child's experience. The world of industry is the center of everyday life, and the way to enter into an understanding of it is by way of the workbench, the tool and the machine. Of course the home looks after this phase of education to some extent, but necessity seems to call for far more to be done industrially by the school. Other courses often called vocational may also be defended from the same standpoint. Commercial courses afford a valuable insight into the world of trade, and if they prepare for a livelihood, so much the better. Commercial geography is particularly valuable as an adjunct to economics. And as to agriculture, there is slight excuse for any pupil failing to obtain in more or less detail a comprehensive knowledge of this basic industry.

That the trade school will come, competing with the high school or even the grammar school, seems certain. They will come as a concession to the immediate needs of the masses and the demands of the masters. They will be better than much of what is now called education, and as a correlative to a wider preparation, would be an unmixed blessing. But if they are to be narrowed to the merely vocation for any large part of the normal population, the school may well raise a serious question to society at large, relating to economic problems as they bear upon education. Even now the main reason why so many fail to complete the common and high school course is undoubtedly that the demands of modern industry do not permit. The child from the industrial slum has little chance of any effective training. The child from the home of the working class, where all the attention is necessarily centered in a sordid grain to gain

bread, lacks the physical and mental environment favorable to the development of the best self. Science today assures us that the lines that separate the so-called better from the lower classes are really artificial, and do not correspond at all to natural superiorities. The world is the loser by each of the mute, inglorious Miltons, Edisons or Lincolns whom chill penury represses. The question needs to be asked with greatly increased insistence why it is that modern civilization with its marvellous wealth-producing power, can do so little for its workers and their children. Are we as a nation so poor that a large number of each generation must sacrifice their right to a wide view of life in order that they may early specialize into cogs in the industrial machine, to grind out useless luxury for the children of the privileged classes? Certainly the school and modern industry do not correlate, but the question is pertinent as to whether the school should be transformed to fit present industrial conditions, or whether the economic system should be modified to meet the need of producing broad-minded, free men and women.

THE CONSTANTS IN THE HIGH SCHOOL CURRICULUM.

SUPT. A. G. CRANE, JAMESTOWN.

The establishing of constants is an effort to make the work of the high school uniform. The chief arguments for uniformity are three in number. The first is the claim that there exists a certain minimum of common knowledge which must be secured before a person can be considered as possessing a liberal high school education. In other words there is a certain definite, indispensable content common to all respectable high school educations.

A second reason for uniformity is that these constants are required as entrance to college.

A third reason is undoubtedly the very natural desire of the high school board to keep the students and schools in line. There may exist other very potent reasons for uniformity but these to me seem to be the principal ones.

I will take these arguments up in an inverse order from that in which they were stated. The natural desire of the high school board for uniformity should be easily understood by all present. We all like to have the children march in straight lines and in time to the music or to the "left, right, left" of voice or hands. We may take pride in pointing to simultaneous classes in each subject and even to uniform rates of progress of all teachers and all pupils on any day in the year in any given subject. But barring enough uniformity and lock step to insure decent discipline, I believe experience shows that a better plan than straight line uniformity is an increasing measure of liberty. Grant as many privileges as will be used without being abused.

The argument that any subject deserves a place in our high school because it is a requirement for entrance to college is a valid argument if it is required by a sufficient number of reputable colleges. This argument is weakened by the extremely small percentage of high school graduates who ever go to college. If it should be a choice between teaching a subject for nine pupils who remain at home or a subject for one who will go to college the majority should rule in the public school supported by a government whose foundation principal is the democratic ideal of majority rule. However we may look at the necessity or justice of placing upon our curricula subjects which are required for entrance to college we must admit that to require all schools and all pupils to take a subject because it is an entrance requirement is a palpable injustice. The introduction of a subject into the high schools of a state may be justifiable upon the plea of college entrance but the placing of any subjects upon the list of constants requires other more potent reasons. That all must take this subject because forsooth some of them are going to college is palpably and clearly fallacious.

The first argument that the study of certain specific subjects is a necessary essential to any respectable high school education seems in its ultimate analysis to be a matter of opinion in each specific subject. It would not be difficult to find several of the present high school constants upon the value of which as essential components of liberal high school education the educators present would differ greatly. In fact, I doubt if there would be any great unanimity of opinion regarding the absolute indispensability to a high school education of fully half the present high school constants. We cannot say justly that the ignorance of any few subjects should forever brand a pupil as uneducated. Very few indeed are the subjects which can be named as a "sine qua non" of a liberal high school education. I can imagine pupils amply qualified to rank as graduates of any high school who, perchance, have not pursued several of the present high school constants. The definition of an educated man is wider than the content of any specific branch.

I have tried to state fairly the arguments for uniformity and as fairly what seem to me to be the objections to these arguments. If I have mis-stated or have been ambiguous it has been from lack of ability rather than from any desire to understate the case for uniformity.

The effort to secure uniformity seems to me to be at variance with some fundamental facts of human nature. Man's success in many fields of work consists in making uniformity out of variety. A lumber yard represents straight edges and smooth surfaces compared with the natural forest. A load of flour represents more regularity than a field of grain, and both the flour and the lumber considered as products of a complicated process show wonderful skill and knowledge upon the part of the men who bring it about. Both industries make orderly what before was disorderly. Both start with something alive and finish with a dead product. Our recognition of the greatness of the achievement in making uniformity out of variety in industry and commerce has unconsciously made us overestimate the value of uniformity in school affairs. We wish the order and precision of the mills in our schools and the same uniformity in our products. We forget that we are dealing with life. Our problem is that of the varied living forest and field, not the factory.

Criticism is frequently made of the graduates of our public schools that this one cannot write, the other one cannot calculate, and a third one cannot spell, while others are ignorant in ancient history, in physics, in plane geometry and the schools and school teachers are loudly called upon to show why they have not given these students better instruction. The critics set up a standard of uniform excellence in all subjects for all pupils. They criticize us if we fail to turn out graduates from our schools who are all proficient at all times in all subjects of our curricula. They forget that the Maker of the Universe never intended these pupils to be all alike at all times. The critics forget that these graduates are living, growing, developing organisms. The critics forget that they themselves, do not present uniform ability and skill in all departments. They forget that their ability in different departments varies at different times, that possibly they, themselves, could have passed a better examination in

some subjects while in school than they ever could after. These same critics forget that the raw material which they furnished to our schools was heterogeneous, that the pupils attending our public schools come from all conditions of homes and parentage and hereditary equipment. They forget that to make this heterogeneous equipment homogeneous is a problem not for twelve school years, not for a generation, not for centuries, but for a millenium. They forget that we are unable to take this raw material and mix it like wheat or iron ore and thereby get an average uniform product. Our raw material comes in separate, unchangeable, indestructible units and our influence upon these units is constantly limited by what was originally placed in them. I wish every school man would forever cease to supinely accept the responsibility of the home and parents and general economic conditions. We are justly accountable for our part and for no other. I wish every school man would, in season and out of season, protest against the placing upon the shoulders of the public school responsibility for conditions which are entirely beyond the jurisdiction of the school and upon which the school can never have any appreciable effect. The existence of universal requirements or constants gives color and support to this false standard of the critics. The school men should stand for the natural and unavoidable variety in their graduates and assume no responsibility for unreasonable standards of uniformity.

As we protest against this false standard of our would-be critics, let us show that our graduates have a reasonable degree of uniformity along certain lines. Let us show that our graduates have increased thought power, improved habits of application, higher standards of life, increased appreciation of that which is best and noblest. Let us show that our students have uniformly improved from the raw material to the finished product.

I believe a mistake has been made in considering high school constants, in that we have been prone to think that the content is the whole thing, however it may be acquired. It is the content but the content acquired actively. Mental growth and power require grasp and assimilation of the ideas studied. Without this there is no growth in intellectual power any more than physical growth can be produced from food without perfect digestion and assimilation. To think through some subjects is impossible for some pupils. All they can possibly do is to imperfectly acquire the content. This at best is a half benefit. It may be worse; it may be a detriment. They may lose the power to think, to judge, to appreciate. They may lose their standard of what constitutes proper acquisition through the substitution of a false one. Memory and parrot like power of repetition may be substituted for clear comprehension. The teachers complain that advanced high school classes do not know how to study. They are dependent on the teacher for explanation of anything at all difficult. They are unable to select salient points. Our graduates are said to be unable to apply their knowledge. They have been taught to acquire content with the least possible mental activity. Acquisition through mental activity is needed to educate. Every pupil has certain subjects which will give him

the greatest returns for his time and effort. The question in any individual case should be not what is good for this pupil, but what is best. For his individual temperament, abilities, training and future, what is the best we can offer him? It may not be the ideal best, but it should be the best that our stock affords. Probably all of our high school subjects are good; none are a waste of time, but some are best for certain people. This difference between the good and the best, however, is likely to be much greater than we think. Some subjects may come perilously near being a waste of time for individual pupils. The high school constants violate these principles. They say that these eight subjects are the best for all students. They thereby assume that all students are alike; that the raw material is homogeneous; that the product should be uniform and that all minds can think through these eight subjects and get more value from them than from any other subjects in the course.

The general argument for some of these subjects is not the content but the disciplinary value. To my mind the intellectual disciplinary value of any subject lies almost wholly in its power to incite mental activity—in the power of the child to think through the concepts presented by the subject. If pupils are occasionally so constituted that they cannot comprehend and mentally assimilate certain subjects, then to those pupils the only value derived from such subjects is the very doubtful utility of the content and the sole disciplinary value of obediently striving to surmount the unsurmountable. To such misfit students and pupils it becomes the discipline of "doing time," of marching up the stairs and down again.

In the sawmill, the establishment of ironclad rules similar to constants would assume all logs to be pine, to be twelve feet long, would require that the product must all become two by fours and would assume that all logs will cut to best advantage into two by fours. Any one who has watched a mill knows the absurdity of such assumptions. The highest paid employe is apt to be the man who directs the cutting and through long practice cuts the miscellaneous sizes and classes of logs into the kind of lumber for which each log is best fitted.

Another illustration which I believe may make clear my point is that found in the realm of food. Take any five men of your acquaintance. No two of these five men eat exactly the same food. They do not eat 70 per cent of any eight constant kinds of food. One of them cannot digest white bread; another cannot eat potatoes; another is a vegetarian. All eat nearly the same materials, yet all differ. All could board at the same table if a reasonable variety was provided, and the right of choice was not abridged. No two of these men are engaged in the same occupation. One is a drayman; one is a farmer; one works in a warehouse; one works in a bank; one is a professional man. These men vary in their diet and in the use which they make of this diet, yet all have some points of uniformity. All have good muscles, active brains, good nerves, and are efficient workmen. We have here uniformity in variety. In the school we may have a variety of subjects offered. Perhaps no two scholars take exactly the same set of subjects, yet in the main the variance will be small, and the graduates will present some uniform characteristics. They

all can think; they all have respect for books and knowledge; they all know what it means to actively acquire knowledge, and all have increased their store of facts. All are educated. To continue the comparison, no two of these graduates will use their education exactly the same, yet all may be efficient workmen.

The objection has been raised that greater freedom allowed to the high schools implies the right of choice somewhere. It is further claimed that if this choice is left to immature minds it becomes a menace to symmetrical development and presents temptations to follow the path of least resistance by the election of "snaps." How would I overcome these objections? First, I would eliminate all snap courses. Then the choice from any list of respectable subjects does not appear to me to be fraught with such dangers as are suggested. Each man and woman is responsible for the structure he erects with the opportunities and equipment given him. If he is responsible the choice should be his, not mine. If I limit him right of choice I am thereby assuming his responsibility. You say he does not know what is best for him. Perhaps he does not, but do you or I know it better? I feel keenly that I am assuming unwarranted responsibility when I assume that I have the ability, insight and judgment to determine more infallibly what will be best for him than he himself. If this assumption of superior knowledge on my part is unwarrantable for the pupils of my own school whom I have seen what must be the assumption to legislate for all those in the state whom we have not seen?

An objection to any extremely rigid course of study is met in grading these misfit students. Did you ever meet with a student who could not get a creditable comprehension of geometry? I do not mean a memoriter knowledge but an active acquisition of its facts and principles of reasoning? What did you do? Be frank. Did you refuse him a diploma and forever brand him as incompetent because the Lord and his parents had failed to give him a mathematical mitld? Or did you use that geometry as a club to discourage him and drive him away from school. Because he could not digest the pancakes did you drive him away from the meat and potato? Did you make him repeat it once, twice or thrice and then instruct the teacher to pass him because he had secured all that they could get from the subject and deserved the grade for persistency and industry, or did you wait until a fortunate set of state examination questions giving his particular combination allow you to squeeze him through at 65 per cent? Then did you sign his diploma of "honorable completion" of the course of study when you knew that you meant persistency and memoriter superficiality? Honest, did you not put your signature to a lie with a mental reservation? I have and I am not ashamed to own it. If I have stated this situation fairly would it not in all honesty be better to allow some misfits to substitute some other subject which they can master and then keep up our standard of individual scholarship and preserve the honor of our signatures?

In my discussion of this topic of high school constants I have endeavored to briefly state the principal arguments for uniformity and the apparent objections to these arguments. It has been my aim to produce

as further objections to uniformity what seem to me to be the actual conditions inherent in the pupils of our public schools. First, that the talents, tastes, abilities and future of our pupils are so varied that the endeavor to make them alike in the high school education because an effort to make uniform what was intended by nature to be varied. Further, that though our graduates may have pursued different subjects still all may be considered as educated and that there may be an important uniformity in improvement of habits, thought power and ideals.

Second, that the active acquisition of mental concepts is necessary to intellectual growth or education and that some pupils are unable to actively acquire certain subjects. If these subjects are constants they then are forced to apply their time and energies to great disadvantage when if their right of choice had not been limited, they might have substituted subjects of vastly more educational value to them.

Third, that the mental disciplinary value of these misfit subjects becomes very small owing to the students' inability to actively comprehend the concepts presented.

Fourth, that the right of choice should be the inalienable right of the person upon whom rests the responsibility for success or failure. The universal abridging of this right of choice in the establishment of constants is an unwarranted assumption of infallibility by the school authorities.

Fifth, the practical grading of students in misfit subjects is provocative of many abuses and tends to lower the standards of scholarship and the meaning of the diploma.

In conclusion it seems to me that the best thing that this association can do is to endorse that portion of the report of the Committee of Seven which advises the reduction of the high school constants to three years of English and one-half year each of American history and civics, thus placing the other constants upon the elective list where competition will require them to base their claims to indispensability upon real rather than artificial values.

MUSIC AND ART IN THE HIGH SCHOOL.

SUPT. R. L. MASON, COOPERSTOWN.

The study of music and the study of art in the high school lead to results so similar, that it is quite natural to class them together. Still they are very different. The one has a character of its own, and is very clearly defined, while the other overlaps almost every other subject. The one is narrow, the other broad. For instance, the student in the manual training department may manufacture a table, or other article of furniture, with a high polish. At least the polishing is art, and if the joints are well made and the other work well done, it will all partake of the art study. Again he may bend a glass tube in the laboratory so perfectly that it is symmetrical in every respect. This certainly partakes of art. He may become so expert in his mathematics that he can add column after column of figures quickly and accurately. This, too, is art. Many other instances might be cited to show that art overlaps almost every subject. In short art is that part of education which lays emphasis on the excellence of the work done and the good taste in the product of the work. To lay down a definite course for the study of art in the high school would be, it seems to me, an impossibility. So in this brief paper I will endeavor to point out only the aim of art as it is represented by the one subject which is all art, namely, drawing.

The work of a high school, as well as that of any other institution of learning is, primarily, or at least ought to be, a place for the development of character. The final goal is not to cram knowledge of every kind, size and sort into the pupil's head, or to make him efficient in any one special line, but to develop the all round man or woman, the broad individual, the good citizen. In order to accomplish this, the teaching, the training, the example, must be the kind that will bring out the qualities that go to make the good citizen. We cannot plant barley and reap wheat, for the good book tells us that "whatsoever a man soweth that shall be also reap." The school days are the seed time, and the spirit of the school will be the spirit of the community a few years hence. Along these lines the student should have training. We might call them the three H's—the head, the hand and the heart.

From the beginning the public school has had for its aim the training of the head. In the little red school house the training of the head was foremost, with only a slight inclination toward the training of the hand. In mathematics, and penmanship, a certain training of the hand was an absolute necessity, but with the advancement and improvement of our methods the training of the hand is commanding more and more of our time and attention. We are an industrial people and naturally the industrial training, the training of the hand will ultimately

come to the front. But it is our duty as educators to see that this inclination does not crowd out other training which is necessary for the development of the all-round man or woman. Ample provision has been made in our carefully planned course for the training of the head. Ample provision is at the present time being made for the training of the hand. But where in our system is ample provision being made for the training of the heart. The answer is, in the music and art. Love is the secret of art as it is the secret of life. The measure of satisfaction which we derive from life is largely dependent upon our attitude toward it. Since unconsciously we come into possession of our habits of mind, both good and bad. Since unconsciously the pupil is led to an attitude of love, of reverence, and strong appreciation of nature, a true training of the heart. The aim of our art work in the high school is to teach the pupil first to see what is set before him, then to feel, and then express in outline or color what he sees and feels. To accomplish this we plan to develop aesthetic sense and sight with the same logical sequence with which the academic work is planned to develop thought.

The idea that should pervade all art work is to make the pupil see more and more accurately, and then draw more and more accurately what he sees. The average high school student appreciates much more than we at first think. The reason for this is that he has not as yet developed his powers of expression to such a degree that he can make known his feelings. The art in the high school supplies this expression and aids the feelings. So much for art.

Music plays so important a part in our lives that it would not be expedient, it would not be right, to eliminate it from our high school course. When in the walks of life sentiment and feeling prevail, we also find its musical accompaniment. On every joyous occasion, and on every sad one, music plays its part. The infant is soothed by the mother's lullaby. The boy and girl spend many happy hours, made happier by the sleigh-ride songs or the serenade. The martial music and the bugle call to arms, fires all the patriotic spirit of the avenger of his country's wrongs. When the bride and groom approach, the altar music accompanies them to the happiest event of their lives. When death lays the proud head low music soothes the hearts of the friends left behind. It is used on every great occasion and every impressive ceremony, and no high school should be without this refining influence. The music in the high school should be such that it would fit the student to enjoy the music of life. Music was not made to be a drudgery, but a pleasure. If he does not enjoy the music period something is wrong, either with the method used, the selection of material, or the instructor. Music is essentially a training of the feelings. Without feeling we can have no true music. The dry technic is only an aid to expression, not the true music. One of the most important things connected with the music in the high school is the selection of material. Very few are capable of selecting music which will enthuse. Many of our teachers of music select material that appeals to them. They forget that they have had years of training to develop their tastes, and that their tastes are not always a

safe guide. The music teacher, too, is several years older than the pupils, and tastes change with age. In the selection of material the instructor must put himself back several years, also must eliminate at least the professional part of his training. The music teacher must study the pupils, learn their likes and dislikes, become one of them or failure either partial or complete is sure to follow. The student leads a different life from that of the instructor. He thinks different thoughts, and the music of his life has a different tone from the music of your life or mine.

But, you say, the taste of the pupil must be educated until he does appreciate the best music. Yes, this is true, but lead him gradually until he feels the better music. He cannot express that which he does not feel. If you cannot excite the feeling and enthusiasm for the best music, then use music of the second class until you can excite such feeling. But by all means enthuse. You might ask me what material to use. I cannot answer that for every community for they differ in development and tastes. Study the pupils of the one community and select material for that particular school. There are, however, several pieces composed the last few years that take in every school, such as the "Jolly Student," and "Our High School," I have never known these to fail. There are also many old simple pieces that they love to sing, "Massa's in the cold, cold ground," "Old Black Joe," "Juanita," "Swinging with the Old Apple Tree," "The Old Folks at Home," etc. Now as to the course offered. Most of the music in the high school should be elective, however, if it is entirely elective some will not elect it because they have wrong impressions. To overcome this, difficulty I would have the entire high school in the chorus. A period of from fifteen to thirty minutes is long enough. Aside from this organize the girls into a girls' glee club, and the boys into a boys' glee club. This of course to be entirely voluntary on the part of the pupil. They ought to be interested enough to practice after school hours. Boys, especially, do better alone.

Music, as I have said before, is a training of the heart, and an expression of the feelings, and most boys of high school age will express these feelings in song only when by themselves. For those who desire further instruction, a class in theory would be desirable as an elective. Have you ever experienced the pleasure of joining your voice with others in singing some favorite schoolday song? Have you never had the swing of the song get into your blood and send it tingling to your very finger tips with exhilaration? Then you are to be pitied. You have missed something, something that "drives dull care away," something that strengthens and uplifts and makes you feel at peace with yourself and the world. Surely the path of duty as far as music is concerned, lies plainly before us.

THE DEPARTMENT OF
ELEMENTARY EDUCATION

MINUTES

OF THE DEPARTMENT OF ELEMENTARY EDUCATION.

THURSDAY, DECEMBER 31.

In the absence of the president of this section, the meeting was called to order by the vice president, Miss Bertha Palmer, and with Miss Rutherford as acting secretary.

A motion was made and carried that Supt. C. C. Gray represent the elementary section on the nominating committee.

Supt. W. E. Hoover gave a talk on Manual Training in the Grades.

Mrs. Una B. Herrick read a paper on "An Ideal Course of Physical Training for the Grades."

Dr. G. F. Reudiger read a paper on "Teaching Hygiene in the Common Schools."

The following persons were then elected, as officers for the ensuing year:

| | |
|--|----------|
| President, Superintendent W. E. Hoover | Fargo |
| Vice President, A. H. Gleason | Crary |
| Secretary, Miss Margaret Rutherford | Mayville |

The meeting was adjourned.

MARGARET RUTHERFORD,
Secretary pro tem.

MANUAL TRAINING IN THE GRADES.

• SUPT. W. E. HOOVER, FARGO.

Superintendent Hoover did not give a paper, but gave a most valuable impromptu discussion of the subject. The main points which he made are:

(1) The desirability of manual training as an element in the course of study from the first grade to the high school on account of its yielding to the child physical training, intellectual training and vocational training.

(2) The means through which manual training may be accomplished in this section of school work, using concrete illustrations in processes and materials.

This discussion was well received and accepted by those present and considerable interest in the manual training course now used in the Fargo schools was manifested.

AN IDEAL COURSE IN PHYSICAL EDUCATION FOR THE GRADES.

MRS. UNA B. HERRICK, STATE NORMAL, VALLEY CITY.

The topic assigned to me was "An Ideal Course in Physical Training for the Grades," but, with apologies to the committee, I beg leave to substitute the word "education" for "training."

I believe in a physical education that will develop right and lasting habits of active exercise as the rock of foundation of all scholastic attainments, moral growth and efficiency in life. It is my firm belief that all education, from kindergarten through college, should have this one aim—to develop each pupil to his highest economic value as a unit of society, to the end that when he finishes his year in schoolroom work or preparatory training, he may carry forth into life a sane, well balanced logical mind, high moral character and a strong, symmetrical, properly functioning body, capable of assuming and performing cheerfully and well the duties of cultured citizenship, whether these duties lie in business or in home making, or both.

Is our educational system doing this? From my point of view, no. My conclusions are based upon the results of physical examinations shown in the tables published by American Gymnasium Co., and further by my own examinations of students entering our school; and class room reports, and finally from personal observation of them in class and socially.

Physical examination reveals, in a large percentage, a woeful lack of symmetrical development, and in many cases, absolutely marked deformity, low shoulders, drooped necks, prominent abdomens, awkward gaits and poor carriage are so frequent as to be almost the rule. The muscles are flabby and weak, the skin sallow and disfigured by acne.

In place of calm nerves, sound sleep, sane judgment and optimism, I find students of sixteen and eighteen years confessing to nervousness, confirmed in habits of worry, easily startled by noises, and I regret to say, not a few hysterical. Why is it so many college women have to take enforced vacations of a year or more to recover from the strain of their work, and some never recover their normal health equilibrium?

So much for physical unfitness.

A close observation of their habits, and the result of previous educational processes show mental defects which should not exist if the lower schools, especially the grades, were doing their duty.

I find, upon some investigation, this is true of all our present day school systems. Many of our first year students have failed during their grade work to establish definite habits of concentrated study; instead of having schedules of time for the entire day, devoting such hours to hard concentrated study, some to work, some to play, they jumble all together. The result is a waste of time, dawdling over lessons, reading

without thinking, figuring without reasoning, until in their mental befuddlement they cry out, "too much is required," "the work is too hard, we have to study all the time." No time for recreation and exercise. The trouble lies with the grade schools. Work has been made too easy—concentration and application have not been required; education has been spread out too thin. They have learned a little about many things, but have not acquired sufficient consciousness of mental power to grapple successfully with harder and still harder problems. Briefly, they lack mental self reliance.

A second fault is the pathetic failure to comprehend what constitutes rational education. Nowhere along the educational race track have they received the tip that he who would win in the practical contests of bread and butter life is the one who, in addition to a clear thinking, well trained mind, high moral standards, and cultured man and womanhood, possesses a physique robust and strong, which is capable of enduring prolonged and intense application to work, either mental or physical, that the economic value of education is not measured by Phi Beta Kappa Pius, but by the ability to apply what knowledge one has.

The economic value of educated man is zero unless made operative by vigorous health and vital powers.

One grave error made by our grade teachers is: They have no clear defined reason for faith in the value of exercise and fixed habits of recreation. They, themselves, have too frequently to be really forced to take sufficient exercise for the maintenance of health.

I have remarked that there are faults in the grades. First and greatest, from my standpoint, is the strange failure of school officials and teachers to realize and keep in mind the delicate mechanism of the girl and the close and vital relation of all her powers to her physical health, especially is this true of the girls of the upper grades. The child is maturing, and at this stage, new demands are constantly being made upon him. The entire future and happiness of the child, no matter what the vocation, depends on their normal physical development and the preservation of health equilibrium. Instead of a recognition of these conditions, and a corresponding lightening of the education strain, we find more burdens piled on and more demands made upon time and strength. Secondly, the subjects brought to the child's attention are too large. It would be wiser to cultivate smaller fields and plow the furrows deeper. Thirdly, there is too little common sense instruction as to the real value of health and the vital importance of exercise, recreation and fresh air, if one would have a clear mind and obtain the best educational results.

The average grade school has too few recess periods, and many of those arranged for are not properly used. The teachers fail to insist upon the pupils employing the time given for recreation in active games. They themselves do not set the example, and even allow study during these periods.

If a student be lucky, he enters the high school or normal with fair health. As I have said they come to us weak, physically nervous and

poorly equipped for a strenuous school life. Here they find altogether new conditions to which to adapt themselves. All along the line come increased demands. Class room competition is keener. The assignment of lessons are longer—often too long to be prepared within a reasonable time. The courses are more rigorous. The social duties of the school also demand some time and strength. The problems of character formation and religious faith as personal matters, confront them, and as a result of overwork, overstudy and overplay, too many students go out into the world physically unfit to contribute anywhere their proper economic value to the world's work.

Too often is the physical education put on a lower plane than the other courses, by schools. It is too often considered as an insignificant side issue, and it is sometimes hard for teachers to arouse any interest and make pupils realize the great benefit which can come from it, when there seems to be, on the part of the board and parents, really no rational conception of the proper ratio of health and physical education to present and future efficiency.

Many of our large factories and stores now realize the increased economic value of their employes when receiving physical training and supply free gymnasiums and baths. If a clerk is worth more intellectually, morally and physically to his business to warrant an outlay of capital, what about the economic value of an educated man or woman?

In most schools little or no proper training in physiology and laws of national living is required or even obtainable. On the other hand, too many instructors are living negations of the commonest health principles. Men who almost never take exercise save what is compulsory, who defy all laws of health and hygiene in matters of class room ventilation and requirements, who lay great stress upon intellectual attainments and morals and ignore the one thing that will give permanent value to them—good health. If these conditions exist, how are we going to remedy them?

I believe it can only be done by a vigorous campaign of education, including all who have to do with the development of children. Begin with the parent, make them realize the supreme importance of their children developing into physically perfect men and women. Make them understand that the only way to do this, is to guard them carefully during the adolescent period; to lighten their burdens at home and at school, and lengthen the out door hours. Teach them that active, fun inspiring games and a free life in the open air, with the elimination of late hours and unhealthy excitement, will in nearly every case bring the child through this critical period a robust, strong, well developed young animal, who can be moulded later and trained into a well balanced, cultured man or woman.

Next take the schools and go through the same process with them. Require in the school teachers who are interested in the physical welfare of the child. Require them to teach right living, both theoretically and practically; to enter heartily into games and sports with the girls. Forbid the teachers to use the recesses for purposes other than exercise

and recreation. Advocate a minimum number of subjects; the essentials only, and cultivate a power of mental self reliance; have emphasized from kindergarten to college that health is the basis of education and that the easiest and most rational way of attaining and preserving it is by regular habits of active recreation; have teachers who will set the example.

Students should have the essentials of physiology and anatomy clearly explained and taught them, and the simple rules of rational living impressed upon them.

In higher schools of learning, the problems of forming correct habits of exercise for those students who do not already have them and confirming and broadening those already formed by others, confronts us, and can only be solved thus: First, by placing the physical exercise department where it belongs. The board of trustees must be made to see it in its true relation and proportions to other work of the school; to recognize it as the basis of rational mind and character building education. When this is done, there will be no difficulty in having it placed where it belongs in the curriculum; as it is in all respects, the peer of any course offered. It should not be considered, in any sense, an extra, but should be accepted as one of the required studies and have the same credit given for it, as in any department.

Granted that physical education be given its true value, what line of work is best for the grades?

Corrective work cannot be eliminated; a certain amount of it must be given, but corrective and educational gymnastics must not be allowed to overtop the recreative side. Realize that the purpose is to develop, not merely bodies, but habits which shall be operative through life.

Education can only be truly effective when it speaks through sterling character, backed by a strong body. No matter how keen the intellect, how logical the mind, how well stored the brain; the end of any school course is a failure if the student does not carry away with him a strong, well-developed, properly functioning body, a settled belief that physical health is necessary to the highest mental, moral and intellectual efficiency of how to care for the health, and fixed habits of exercise and recreation.

THE TEACHING OF HYGIENE IN THE PUBLIC SCHOOLS.

GUSTAV F. RUEDIGER, M. D., PH. D., DIRECTOR OF THE STATE PUBLIC HEALTH LABORATORY, UNIVERSITY.

"Conduct," said Mathew Arnold, "is three fourths of life." This being true, what can be more useful than the teaching of right conduct of the physical life in our public schools? Our daily acts are largely automatic and not the result of conscious thinking. We know that things learned in early youth and childhood, and habits formed at that time, are usually more lasting and more distinctly our own than things learned in later life. It is easier also to form correct habits in early life than in later years, because there are no well formed vicious habits to break away from. In the teaching of hygiene and sanitation it is conduct rather than information that must be aimed at, and as the conduct of a young person is more easily influenced than that of an adult, it is imperative that the young pupils should be taught the elementary principles of sanitation.

In most of our public schools the subject of personal hygiene is taught in connection with the principles of physiology. That is perfectly proper and just as it should be, except that I would like to urge a more thorough preparation in physiology on the part of the teachers. It is impossible to get satisfactory results in the class-room when the teacher has to study the subject for the first time while trying to teach it to others. I have seen teachers who labored through a text book several pages ahead of the class, and thought that they were teaching the subject properly, although they could not possibly have a general and connected view of the whole subject because they had never studied it before. Furthermore, I do not believe that a person can properly teach physiology and hygiene in a high school, for instance, when he has not taken a more advanced course in that subject than the one he is supposed to teach.

In most of the text books on personal hygiene which are now available, too much attention is paid to the evil effects of alcohol, tobacco, and other narcotics, and not a word is said about prevention of infectious diseases. This subject will be considered under the heading of public hygiene and sanitation, subjects which are hardly touched upon in the curriculum of our public schools at the present time.

It is not physiology and personal hygiene to which I wish to call special attention this morning, but I wish to consider with you the teaching of public hygiene and sanitation. It may be well to stop at this point and to ask what is meant by public hygiene, and what by personal hygiene. I quote from Sedgwick's "Principles of Sanitary Science and the Public Health" as follows:

"Public hygiene is the science and the art of the conservation and promotion of the public health. It has for its function the prevention of

premature death and the promotion of normal life, health and happiness in communities chiefly by the elimination or amelioration of unfavorable environmental conditions common to many persons or communities either at one time or at different times.

"It includes especially hygienic problems common to groups or communities, such as camps, villages, towns and cities, e. g., water supplies, drainage, milk supplies, ice supplies, the control of infectious diseases, heating, lighting, ventilation, school sanitation, municipal sanitation, and the like.

"Personal hygiene is the science and art of the conservation and promotion of personal health, and has for its function the prevention of premature death and the promotion of normal individual life, health and happiness chiefly by direct conservation and reinforcement of that physical mechanism which we call the human body.

"It includes especially problems relating to proper foods and feeding of the individual, his sleep and rest, his work and fatigue, his muscular exercise, stimulants and narcotics, the care of the eyes, the ears, the teeth, the bowels, the hair and other organs, clothing for special conditions, etc."

If we would impart a clear understanding of the problems of public health and sanitation, we must devote a few preliminary lessons to the consideration of bacteria. The pupil must understand that the word bacteria refers to the smallest known living plants and that they are present everywhere on the earth; that they are of three principal forms, viz.: bacilli or rods, cocci or spherules and spirilla or spirals. That the disease producing bacteria form only a small group of these plants, all of which are too small to be seen with the naked eye. The conditions under which bacteria live and multiply, and the conditions which bring about their destruction must be clearly stated if we wish the pupil to have an understanding of the subjects of disinfection and prevention. We should teach the pupils the uses, and relative values, of disinfectants and antiseptics; and which of the body discharge must be disinfected during the course of a disease in order that we may avoid infecting others with these discharges. We must emphasize the fact that filth and dirt are not breeders of disease but that they frequently are the carriers of infectious material, because they contain the poisonous discharges from the body of a person suffering from an infectious disease. In connection with the subjects of diphtheria, scarlet fever, measles and whooping cough, we should point out that the saliva and nasal discharges are especially dangerous to others and should therefore be disinfected with a 5 per cent carbolic acid solution, or should be collected on cloths and burned.

TUBERCULOSIS.

Special attention should be given to the subject of tuberculosis. Everyone should know that consumption is a disease of the lungs, which is taken from others, and is not simply caused by colds, although a cold may make it easier to take the disease. It is caused by very minute germs, the tubercle bacilli, which usually enter the body with the air breathed. The

matter which consumptives cough or spit up contains these germs in great numbers, frequently millions are discharged in a single day, and hence this matter, if not properly disposed of, is the chief source of infection to others. This matter, spit upon the floor, walls, sidewalks, or elsewhere, dries and becomes powdered, and sooner or later floats in the air as dust. This dust contains the germs, and thus they enter the body with the air which we breathe. This dust is especially dangerous indoors, because the direct sunlight and other influences outside destroy many of the germs. The breath of a consumptive is not likely to contain the bacilli and will not produce the disease, but a well person may catch the disease from a consumptive by taking in the coughed-up matter in some form or other, usually in the form of dust. This material may also be inhaled in the form of spray or fine droplets of spittle which are scattered in the air when the consumptive coughs, sneezes or laughs violently. This scattering of infection material can be avoided by the consumptive if he will hold a cloth or a Japanese paper napkin over his mouth when he coughs or sneezes. A consumptive who properly disposes of the sputum and does not scatter spittle by coughing is not a dangerous person to live with, but those who have the filthy habit of spitting everywhere they go are a continual source of danger to others.

Infection may take place in a number of other ways than by inhalation of the germs. It is frequently given to children by consumptive parents by fondling and kissing. Children may also contract the disease from toys which have been soiled with sputum. Infected food not infrequently is a fruitful source of tuberculosis. Meats may be infected, but are dangerous only when eaten uncooked. The greatest danger lies in the use of milk from tuberculous cows, and this is where many children contract the disease, especially tuberculosis of the bones and joints, glands of the neck and peritoneum.

It is shown by statistics that more than five million people die of consumption every year, and that the deaths caused annually by it in the United States alone number more than 150,000. An analysis of the death-records show that one-tenth of all deaths recorded are caused by pulmonary tuberculosis (for North Dakota the percentage is about 10.6), and if we consider only the deaths occurring between the ages of fifteen and forty-five years we find that at least 35 per cent of them are caused by consumption. That is, during the time when a person is of the greatest usefulness to society he is most apt to fall prey to this insidious and relentless disease, and thus become a burden until he is finally carried off.

Preventive measures must be emphasized, for in no other disease can we accomplish as much by this means as in tuberculosis. It must be pointed out that if they would avoid getting consumption they must keep their bodies in as healthy a condition as possible, which makes it difficult for the tubercle bacilli to get a foothold. "It is impossible to extirpate all tubercle bacilli; therefore it is indispensable so to strengthen and harden the body that the absorbed germs cannot take hold upon it." Every person should know the following rules:

It is unwholesome to live, study or sleep in rooms where there is no fresh air and sunlight. Fresh air and sunlight kill the consumption germs and other germs causing other diseases, therefore have as much of both in your room as possible.

Avoid living in dusty air; keep rooms clean; get rid of dust by cleaning with damp cloths and mops. Don't sweep with a dry broom and don't use a feather duster.

Keep one window in your bedroom partly open at night, and air your living room several times during the day.

Don't sleep in the same bed with a consumptive, and if possible not in the same room.

Don't kiss a consumptive on the mouth.

Never drink milk from cows having tuberculosis, unless it has been previously boiled.

Don't eat with soiled hands; wash them first.

Eat plenty of wholesome and nutritious food, and eat at regular hours.

Don't drink excessive amounts of alcoholic liquor.

Don't keep soiled handkerchiefs in your pockets.

Take a warm bath at least once a week.

Many people have consumption without knowing it, and can give it to others. Therefore, every person, even if healthy, should refrain from spitting on the sidewalks, playgrounds, or upon the floors and hallways of his home, school house, work shop, etc. It spreads disease, is dangerous, indecent and unlawful.

When you must spit, spit in the open gutters or into a spittoon half filled with water or 5 per cent carbolic acid solution.

All public places should be provided with spittoons, because nearly everybody must spit occasionally.

When a consumptive has lived in a house for a number of weeks or months and finally recovers, moves away or dies, the house must be most thoroughly cleansed and disinfected. Where this is neglected we get the so-called house infection, in consequence of which entire families are wiped out. These cases used to be considered hereditary, but we know now that heredity has nothing to do with them. The house is simply swarming with tubercle bacilli, and one after the other the inhabitants became infected and by their careless habits reinfect the house, and thus is established what may be called a vicious circle.

Towels, pipes, clothing, handkerchiefs and other personal articles used by a tuberculosis patient should not be used by other members of the family. When consumptives are bedridden their clothing and bedding ought not to be thrown into the common receptacle for soiled clothes. Such things as can be boiled should be boiled as soon as possible, or else soaked for several hours in a disinfecting solution.

Consumption is not a contagious disease like scarlet fever or smallpox, but it is taken by well persons when subjected to long exposure in the rooms of a careless consumptive. The consumptive himself is not dangerous but his sputum is dangerous, if not properly taken care of.

TYPHOID FEVER.

The prevention of typhoid fever is a subject which should be clearly taught in this section of the country, because this disease is extremely common in our state. We must point out that it is in reality, contagious, i. e., may be "taken" by contact with the patient's excreta, or with his linen, or with any of his belongings soiled with his excreta. Infection usually takes place by swallowing the typhoid germs with our food or drink. They multiply in the bowels and the tissues of the abdominal organs, and are discharged from the body in the faeces and urine. It is for this reason that typhoid fever has been called a filth disease. Not that filth is a breeder of typhoid fever germs but because it is a carrier of them and hence almost the only source of typhoid infection. The old theory was that heaps of filth breed, or generate, typhoid fever virus and inflict it upon persons in the vicinity. This theory has been abandoned long ago, but the fact remains that typhoid fever is contracted from filth because it often contains typhoid germs and food and drink are oftener polluted with filth than most persons realize. Water may be contaminated by sewage; milk by the dirty hands of milkers; oysters growing in harbors by the sewage discharged therein, and fruits or berries by filthy hands. Absolute cleanliness is therefore the safest precaution against typhoid infection. It should be pointed out, too, that a strong and healthy body will often throw off the disease even after the organisms have gained entrance to it.

SEWAGE DISPOSAL AND WATER AND ICE SUPPLIES.

Every intelligent citizen of the United States should have a general knowledge of the various methods of sewage disposal in vogue in different parts of the world. We must teach them in a general way the advantages and disadvantages of sewage disposal on land, sewage disposal in harbors, seas, lakes, rivers and creeks. It must be pointed out that sewage is the most dangerous material we can possibly get into our drinking waters. This matter is so dangerous because it contains all the excreta of human beings, such as washings from the skin, sputum, bowel discharges, urine, pus, etc., all of which frequently contain disease germs. The bowel discharges and urine are dangerous chiefly because those coming from typhoid fever, cholera or dysentery patients contain large numbers of typhoid germs, cholera germs or dysentery germs. This matter can be safely discharged into the sea or salt-water harbors, because this water is not used for drinking purposes, but should not be conducted into our inland lakes, rivers and creeks, because these waters are frequently used as public supplies of drinking water. Public water and ice supplies should therefore never be taken from sources that are polluted with sewage. The various methods of sewage purifications which are practiced in the eastern states and in England should be briefly outlined. These are, treatment of sewage in septic tanks, intermittent filtration through sand, continuous filtration through crushed stones, coke or brick, and purification in contact beds. All of these processes destroy many of the disease germs present in the sewage and thus render it less dangerous when thrown into a lake or river

MILK SUPPLIES.

Milk is undoubtedly the most widely used article of food for children and it behooves every parents to see to it that milk which he or she buys is clean and free from disease germs. Many specimens of milk sold in cities are shockingly dirty and when fed to infants during the hot summer months produce many fatal intestinal diseases. We should point out that dirty milk is highly contaminated with bacteria and hence just as dangerous for infants as it is revolting to adults. Milk should not be used if the cow supplying it is not in perfect health, and should be considered especially dangerous when there is a disease of the udder. I have seen people use part of the milk furnished by a cow when that coming out of one teat was mixed with large quantities of pus and blood. Nothing can be more dangerous than this practice because many of these diseases are communicated to children, especially if the disease happens to be tuberculosis or "garget." Tuberculosis in milch cows is a fruitful source of bone tuberculosis, peritoneal tuberculosis, and "scrofula" among children, hence the milk from such cows must not be used.

It must also be pointed out that milk is very easily infected by careless and filthy attendants, with the germs of typhoid fever, diphtheria, and scarlet fever. Milk borne epidemics of these diseases are not at all uncommon as infection of the milk takes place in a variety of ways. If an attendant at the dairy lives in a house where there is diphtheria, scarlet fever, or typhoid fever, he can easily carry infection to the milk, on his hands or clothing. This has been traced in hundreds of cases. The mother of a sick child frequently does the nursing and if she happens to be connected with a dairy she often is permitted to handle the milk which is to be sold to the neighbor. This should not be tolerated as it frequently spreads disease. Neither should a person engaged in nursing a patient with diphtheria, scarlet fever or typhoid fever be permitted to wash the utensils used at a dairy. Most people do not realize the importance of these precautions and the best way to impress them on their minds is by discussions in the school room.

A general consideration of the subjects of ventilation, plumbing and lighting should also be introduced into the course.

Some of this matter cannot be taught in the lower grades, but most of it can be taught in the seventh and eighth grades. A more complete consideration of the entire subject should be taken up in the high schools. In the grades most of the teaching along these lines should be in the form of very simple, carefully prepared talks on the part of the teacher. In the high schools it might be advisable to use a text book like Hough and Sedgwick's "Elements of Hygiene and Sanitation." This is an admirable little book and should be read by every teacher in North Dakota.

The most serious difficulty that will be encountered in introducing in our public schools the course in public hygiene and sanitation outlined here, is the unpreparedness on the part of the teachers. I do not suppose that more than five per cent of our teachers, including all high

school teachers have ever made a special study of public hygiene and sanitation, or bacteriology. It is in part due to the newness of these sciences, but in part also to the fact that the medical profession has been somewhat loath to disseminate this quasi-professional knowledge. The time has come, however, when medical authorities everywhere are urging the introduction of these courses into the public schools, and especially into our teachers' colleges and normal schools. At the meeting of the International Congress on Tuberculosis held at Washington recently several resolutions were introduced urging the introduction of courses in public hygiene and sanitation into the curricula of all teachers' colleges and normal schools. It was urged that these courses be made compulsory for everyone who wishes to teach in our public schools, and that the courses be given by some one having a thorough knowledge of the subject. This is the only satisfactory solution of the problem, and I wish here to make an earnest plea for the introduction of such a course into the curricula of the teachers colleges and normal schools of North Dakota. If we would teach this subject in our common schools we must begin by preparing our teachers for this work. Scotland has for some time had a law requiring every teacher to have a knowledge of the principles of public health and sanitation, and a similar law is now in effect in England. I am happy to state that our teachers college at the University of North Dakota has practically decided to introduce this course in their curriculum next year, and to make it compulsory for those taking the work of the teachers college.

DEPARTMENT OF
COUNTY SUPERINTENDENCE

MINUTES

OF MEETING OF COUNTY SUPERINTENDENTS.

Valley City, North Dakota, December 30, 1908.

Pursuant to the call of State Superintendent Stockwell, the county superintendents of the state met on the above date at the state normal school at Valley City.

The meeting was called to order by Supt. W. L. Stockwell, who stated the object of the meeting.

At the roll call the following county superintendents answered present:

Fred Davis, Adams county.

N. T. Teigen, Benson county.

P. E. Christensen, Bottineau county.

C. L. Vigness, Burleigh county.

B. E. Groom, Cavalier county.

Jessie N. Peterson, Emmons county.

I. A. Kampen, Griggs county.

Cora A. Scott, Kidder county.

Dalton McDonald, McHenry county.

H. C. Olson, McLean county.

B. O. Skrivseth, Nelson county.

Lucy B. Seiple, Pierce county.

F. V. Hutchinson, Ransom county.

Tene McCarten, Sargent county.

A. G. Miller, Steele county.

John Gang, Towner county.

B. B. Wells, Walsh county.

Maude T. Regan, Wells county.

Helen Prindeville, Grand Forks county.

Minnie J. Neilson, Barnes county.

Joseph Kitchin, Billings county.

Geo. H. Gilmore, Bowman county.

Mattie M. Davis, Cass county.

Geneva M. Lovell, Dickey county.

Zerline Eakin, Foster county.

H. James, Hettinger county.

R. A. McCalmount, Logan county.

E. T. Clyde (deputy), McIntosh county.

W. F. Lorin, Morton county.

Anna Atkinson, Pembina county.

Laurena Vannier, Ramsey county.

E. M. Sherry, Rolette county.

Lloyd Rader, Stark county.

F. M. Wanner, Stutsman county.

B. A. Wallace, Traill county.

E. G. Warren, Ward county.

Martha P. Tatem, Williams county.

Ellen Mattson, Eddy county.

Anice J. Rosenquist, McKenzie county.

Superintendents elect: Hoadley of Benson, Hanson of Emmons, Hurd of Kidder and Clarke of Oliver.

State or county uniformity of text books was discussed by superintendents Lovell, Sherry, Lorin, Gang, Skrivseth, Christensen and Davis of Adams county.

Supt. Lorin of Morton moved that it be the sense of the county superintendents that a law providing for county uniformity of text books would be preferable to state wide uniformity of text books.

On the motion of Supt. McDonald, the motion of Supt. Lorin was laid on the table.

County superintendents reported on free text books as follows, twenty-eight (28) counties reporting:

Free books entire, 9 counties.

50 per cent having free books, 14 counties.

Less than 50 per cent of districts having free books, 5 counties.

The question of the advisability of having additional deputies in the county superintendent's office was discussed by superintendents Warren, Davis, Wanner, Groom, McDonald, Tatem, Atkinson, Wells, Lorin, Christensen, Neilson.

Moved by Supt. Wells that a committee on resolutions be appointed to which the matter of asking for legislation for additional deputies be referred.

The following superintendents were appointed on such committee: Groom, Nielson, Wells, Davis of Adams and McDonald.

Supt. Tatem of Williams county was nominated member of the nominating committee of general association.

Superintendents Wallace, Tatem and Groom were appointed on the committee of the course of study.

It was moved and seconded that it be the sense of the county superintendents that no standings from normal schools outside the state be accepted in lieu of examinations for county certificates.

Motion carried unanimously.

It was moved and carried that a committee of seven on legislation be appointed. The following superintendents were appointed, viz: Superintendents Nielson, Rader, Wanner, Lovell, McDonald, Warren and Skrivseth.

The following named county superintendents were named as members of the pupils reading circle board: Sherry, Prindeville and Skrivseth.

On motion of Supt. Gang the following motions were unanimously adopted.

1. As 85 per cent of the children are limited to a common school education, we recommend a system of state aid to rural schools.

2. Resolved that we favor free text books in the common and graded schools of the state.

3. Resolved, that consolidation greatly increases the efficiency of the rural schools and is a practical solution of our rural school problem.

4. Resolved that experience proves that it is impossible for a county superintendent to properly supervise the work in counties having more than 120 schools, we unanimously recommend that section 777 of the 1907 school laws of North Dakota be amended by striking out the words "in counties having a population of thirty thousand or more."

5. We recommend the appointment of a committee of seven county superintendents for the purpose of aiding the state department in securing legislation for our rural schools.

Signed,

B. E. GROOM,
DALTON McDONALD,
MINNIE J. NIELSON,
FRED DAVIS,
B. B. WELLS.

On the motion of Supt. Warren, A. G. Miller was elected vice president of the county superintendents section, and B. E. Broom was elected a member of the executive committee.

On the motion of Supt. Wells the meeting adjourned to meet at the call of the state superintendent.

THE TIME ELEMENT IN THE CURRICULUM OF OUR RURAL SCHOOLS.

MRS. G. M. LOVELL, CO. SUPT. DICKEY COUNTY.

The school bell is ringing for 17,000,000 children, the doors are closed and activity begins. All day long the steady grind continues until at four we turn homeward this lively aggregation satiated with facts of every variety that our present school system recommends. This continues day after day, month after month, until eight years, more or less, elapse, and millions of our boys and girls return to their homes as finished products of our elementary schools. Are they now able to utilize their learning in the business of life? We know from sad experience that they often have to learn from father or mother the very rudiments of what our schools ought to teach.

This criticism is just then, that somewhere, somehow, our schools are not up to the standards desired. Yet we hug to our bosoms the policies of the past and are loath to tear down the fences of tradition and view the whole field from an unobstructed viewpoint. I think the committee of seven, in its preliminary report on the adjustment of education work in North Dakota, with reference to the needs of the time, is endeavoring to tear down these fences when it outlines, as follows, the six directions that the education of every individual should take: The physical, the vocational, the cultural, the civic, the moral, the religious. When we see that this includes the development of the body; that the hands are trained to attend to the practical things of life as well as the mind to the aesthetic; that we are taught our duty to our government, our fellow man and our God; surely, this covers all to be desired.

In the program of today, set aside for the consideration of vocational studies, various phases have been assigned places on the program. The desirability of agriculture being taught in the schools of this state, in which the one greatest interest is that of agriculture, is conceded by all. The difficulties that beset us in the teaching of the broad subject are so great that we have not yet entered upon the task to any great extent. The subject of finding time in our curriculum for the teaching of agriculture by the elimination of some subjects or parts of subjects has been assigned to me and I confess that it looks like a big proposition. To deal with the precious but elusive element of time so that the most may be accomplished in a given period should have been the problem of a wiser head than mine. The dying words of Queen Elizabeth, "All my possessions for a moment of time," finds echoes in many hearts. The teacher yearns for more time. Shall old-world customs prevail with school days of longer hours and only a half holiday on Saturday? Not this, I hear you say.

How shall we simplify our course of study and thus gain time for the

teaching of agriculture? Nominally, we have agriculture in our course of study now. But in view of the necessity of actually teaching this subject so that it may be of benefit to the rural population, we must devise some scheme for its accomplishment. In case every grade is represented in a school, our course is overcrowded as it is, if one attempts to follow it in all its details. When we view the poor results that are so often met with in the common schools, we are loath to undertake anything else. We believe that the fault in the first place lies not in the teaching of too many subjects, but in attempting to teach parts of the subjects which are not worth the teaching. In the second place, the poor results are not caused so much from lack of time as to poor teaching and lack of proper organization. The committee on industrial training in the rural schools reported to the National Educational Association of 1905, as follows: "The subject matter in the common school course of study needs a critical revision, not so much with the idea of eliminating entire subjects as for the purpose of cutting out matter now found in most text books in the treatment of these subjects and upon which much time is spent in the school without profits to the pupils.

Text books are made to sell; most publishers recognize that certain detail of treatment of a subject is regarded as of vital importance by one superintendent, while another regards it as utterly without value. The argument from a commercial standpoint is that if the detail is supplied, it will meet the requirements of the one and can be omitted by the other, and thus the book may be accepted by both.

In determining what matter may be eliminated with positive gain to pupils, the following tests should be applied:

Has it value as usable knowledge sufficient to warrant its retention?

Is there other matter of greater value as usable knowledge not now taught, but which can be taught if substituted for that of less value?

If its value as usable knowledge is not sufficient to warrant its retention on that ground, has it a value for training which will justify the expenditure of the time and effort essential for its mastery?

Is there other matter, of equal or greater value as knowledge, but with a greater value for training, which can be put in its place and for which there is no time unless it be put in that place?

In no case is there any justification for the retention of any matter in the course of study, whatever its knowledge or training value, if its retention prevents the introduction of other matter having a greater knowledge value and an equal or greater training value.

These are excerpts from the report of the committee composed of men of national reputation. Let us apply them to our needs. Let us take our course of study and see if it needs much elimination. A thorough examination fails to find much need of the pruning knife. It is not of such ponderous size as to appall a teacher with the work outlined for each month or year. Teachers from other states have spoken in highly complimentary terms of our course of study. When, then, is the reason that agriculture cannot have a place on our programs?

The fault lies not so much with the course of study as that teachers do not use it in the manner intended. They use text book and follow the work line upon line, precept upon precept, not discriminating in the matter of elimination of subjects not advised by the course of study. It is easier to say to a class "Take to the bottom of page 238," than it is to look up the matter to be studied during the month and assign lessons in accordance with the plan. The natural sequence occurs—superintendents are advised that the class cannot keep up with the course of study.

A superintendent cannot keep at the elbow of every teacher and personally supervise the work. Inexperienced teachers do not make the proper elimination. This must be done by those competent to judge of the need of the child, of the proper subject matter and in accordance with the ability of the teacher.

Reverting to our subject, we are to consider the time element in the curriculum of our rural schools. Some one has made the statement that we have no rural schools, that is, we have no schools adapted to the needs of a rural community. The same work is outlined for them as for the town or city schools. This being the case, is it not a fact that we are expending time, energy and money in teaching matter that is not so usable to the country pupil as if we had studied his especial needs?

In arithmetic, the problems should be concrete and practical, just such as he hears discussed at home. A farmer boy should know how to measure the contents of a bin or wagon, should be able to estimate the tons of hay in a stack; how to compute the number of posts necessary to enclose a certain pasture; to figure how much he has plowed during the day; to compute the feet of lumber required to build the new barn, and any other phase of practical arithmetic. I do not wish to be understood that this is all of arithmetic that rural pupils should have but these should be well understood by means of frequent reviews; other parts less essential should have less time devoted to them. All the inane problems like three-fourths of the length of the head of a fish equalling three-fifths of the length of the tail and such like have no reason and should not be considered.

We often have teachers in these schools who have had no especial emphasis laid upon farm problems and they are the subjects of scathing criticism when they display their ignorance. An instance recently came under my observation. A young man from the city in watching a farmer hauling off grain asked, "How many pounds of wheat are there in a bushel anyway?" The farmer's blunt reply was, "That's what we hire you to teach."

A course of study which eliminates parts not usable to pupils of rural schools is a good thing, but we believe that our text books should conform to such course of study and they would, consequently, be made less bulky, and inexperienced teachers could use them to better advantage.

How shall this be accomplished?

We all agree that county uniformity of text books is the correct thing, at least, theoretically. We adopt a uniform set of books at our school

officers' association. To be sure, some are not pleased with the selection, and what is their course of procedure? Simply to buy indiscriminately, setting up their judgment as superior to that of the committee's, or being persuaded by some clever book man, or leaving the selection to the teacher. Now where is your county uniformity? As long as there is no authority to bind school officers to a uniform system, so long there will be none.

I believe that state adoption of proper text books would be a time saver. I can see no reason why if uniformity is good for a county that it isn't better for a state. Couldn't we select from over the state a better committee than could be obtained from a single county? When we have a law on our statute books which regulates the selection of such a set of text books, we shall have taken a long step in advance.

Instead of the children being ground down beneath the Juggernaut of ponderous histories, laden with the debris of ages, or engulfed in a sea of physiological facts under which lie the shoals of medical terms on which the innocents strand we could then have brief histories, the subject matter of which could be thoroughly covered in the given time. We could reasonably expect that an eighth grade pupil would actually know the main facts of history.

We would then not use physiologies filled with statements and terms unintelligible to the average child. We would then not have philosophical treatises on geography. We would then not use text books which exhaust the sum total of the author's knowledge or theories. It is a fact that we have been using some high school text books in the grades. If this were done away with, would we not gain enough time to introduce in the eighth grade some elementary text on agriculture?

Suppose that at the next session of the legislature some law like this were passed and that in due time a committee was at work on the selection of books. If they found that the kind of a book that they wanted was not to be had, could they not follow the lead of the state of Indiana and arrange for a book suited to our needs? I notice in the list of books used in the state just mentioned the Indiana Readers. I have not seen them, so do not know what they contain but the inference is that they were printed because they best suited the Indiana pupil. We have a North Dakota speller for certain grades and we have used it to advantage. We have a literature for the study of language which will appeal to every teacher. In the preparation or selection of such new text books, much matter from nature study could be introduced, in our readers, language books and geographies. When a great state like North Dakota seeks books of a certain kind, publishing houses will aim to supply such demand.

However, this idea of state adoption of text books with parts omitted and with additions thereto, may not appeal to you as the proper solution of the problem. What then?

It is not always necessary that every lesson be recited. Suppose that in the eighth grade, one period each week be set aside for the teaching of elementary agriculture. Let the first half hour on Monday be the time assigned for this lesson. The next week, let the second half hour be used

for this purpose and so on through succeeding weeks, until each half hour of that same day of the week has been used for the study of agriculture instead of the regular recitation. This will in no wise cripple the work in any subject.

In conclusion would say that for rural children, the work should be based on what the children bring to school with them. Their lives, their homes, their experience must furnish the concrete illustrations of the truths to be taught. The wise teacher may thus create a respect for our dominant industry and dignify work. We shall then see, through our rural schools, the native intelligence of the children matured into power.

THE TIME ELEMENT IN THE CURRICULUM OF OUR RURAL SCHOOLS.

SUPT. A. G. MILLER, STEELE COUNTY.

The time element in our rural school curriculum is a problem with which many besides Mrs. Lovell and myself have struggled with little short of sheer desperation. It has been the sheeted specter that has haunted the mind of every teacher of rural schools since their organization. Singly and in unison teachers have vainly attempted to solve the problem of utilizing the time in such a way as would meet the requirements of their schools, and, although they met with varying degrees of success, they were finally compelled to submit to a time handicap.

It is true, as has been stated, that from a utility viewpoint our schools do not come up to the standard we expect them to attain. Education should be a preparation for life. If the boys of our rural schools are to become farmers and the girls are to become farmers' wives, and we give them nothing in their school work that will be of assistance to them for that vocation any more than for any other, we are not preparing them very thoroughly for their life's work.

The attempt to teach too much subject matter has, beyond doubt, been one of the most prevalent causes for poor work having been done by the teacher, but it is equally true that the attempt to carry too many subjects has often been the cause of poor work having been done on the part of the pupil.

The lack of proper organization has been another factor that has been instrumental on the part of many teachers to do poor work. They often have been unable to discriminate between the essential and the nonessential. But there are many experienced teachers who can and do discriminate between the essential and the nonessential, who find it next to impossible to get satisfactory results and do the work as outlined by our present course of study. When we consider that throughout this broad state of ours there are hundreds of experienced, energetic teachers struggling desperately, and almost vainly, we might say, to get the required amount of work done in the allotted time; when we consider that large bodies of teachers have worked diligently together for weeks continuous to lay out a program in conformity with the time element and then have as good as failed, it stands us well in hand to hesitate and look around some before adding greater complexity to this problem.

It is universally conceded among teachers closely identified with the work in our elementary schools, that it would be utterly impossible, under the present course of study, to put in another subject. Some provision must be made by means of which a gain in time may be acquired.

In the excellent paper just read two plans were proposed: First, the option by the state of a uniform set of text books so simplified that

they may be covered in a shorter length of time; second, the omission of one recitation in one subject each day for the purpose of substitution of agriculture. I will endeavor to discuss such plan from both viewpoints and submit anything else that I may be able to offer for consideration.

It is an undeniable fact that our text books do contain many parts of the subject that might better be omitted, and that inexperienced teachers, not being able to distinguish between the essential and non-essential and not following the course of study, undertake to teach all that the text contains. We know of many instances where text books, better suited for secondary schools, have been and are now, in the hands of pupils of the seventh and eighth grades of our elementary schools. People outside of the actual educational work who are interested in school affairs become shocked to learn that some of the text books commonly used in high schools and normals are also found in the hands of school children in the grades; that they are struggling with a scientific treatise of physiology; that in place of studying history from a comprehensive viewpoint they are plunged into a bewildering treatise on politics and finance. The adoption for state use of a uniform set of text books in which nonessential parts have been omitted, would do away with this condition, in part at least. There would then surely be a set limitation to the amount that would be taught in each subject. What we did attempt to teach would be thoroughly taught and pupils might then have a much clearer insight to the subjects studied than they do now with greater increased labor.

But in case we did adopt such a set of text books would there not be danger of our making our course too rigid? Should there not be enough elasticity to our curriculum that the individualities of our teachers and pupils would not be pulled or cut to fit the "Procrustean Bed?" For the inexperienced teacher with no individuality of her own, with no prospect of ever becoming an independent teacher, this plan would be idealistic. But it might prove to be a Chinese wall to progressive teachers, tying them down to a mere mechanical routine of subject matter with no chance for supplementing the work of the course of study in case they wished to do so.

As far as the teacher's time is concerned, the second plan suggested i. e., having one recitation omitted in each subject each day in the eighth grade, would make room for another subject without disturbing the rest of the program. But we must also consider the interests and capabilities of the pupil. If, as is the case, there is all the work outlined now that it is possible for the average pupil to cover, if his working capacity is filled to the utmost, any additional work will have but one result, i. e., there must be a loss somewhere in other subjects, unless of course, there is elastic surface tension similar to that of a tumbler of water by means of which we can continue dropping in space-occupying articles after the glass is filled without causing any overflow. Is there an elastic surface tension to the capacity of the eighth grade pupil? If such is the case another additional subject would be received without any loss being experienced.

The common school branches are the foundation of our educational edifice. A solid foundation is as necessary in securing stability and per-

fection in educational edifices as in any other structure. The high school student, unless he is engaged in teaching those branches of study, very seldom has practical use for them as compared with use of the common school branches. It is certainly of greater value to the student to be able to understand the syntax of a complicated sentence in English grammar he chances to run across than to be able to translate a sentence from Cicero; it is of more value for him to be able to measure up his bin of wheat and compute the amount of bushels than to be able to solve a simultaneous equation in Algebra. If then, the high school course is of comparatively minor importance and the readjustment of our curriculum extends throughout our system, why not readjust some of the work of the high school course rather than eliminate some of the common school branches? Why not crowd up instead of down? There is always room at the top, 'tis said.

There is some of the high school work that is contiguous with the common school subjects. Advanced work in U. S. history and civics is already on the high school list. More failures are made in teaching history in the grades on account of the fact that material beyond the grasp of the pupil is presented to his mind, than from any other cause. The financial and political situations with which pupils of the eighth grade have been struggling might far better be taken up later on. A more simple course for the seventh grade and the first four months of the eighth grade could be outlined that would cover all the ground and leave the pupil well posted on the main facts of history. This would, of course, cause more work to be put in on that subject in the high school and might necessitate advanced history coming during the first year instead of the third.

The work in literature of the high school course is contiguous with reading of the eighth grade. The last five months of the eighth grade reading then could be placed in the first year's work as literature in the high school. In this manner a full year's work would be eliminated from the eighth grade course, and the time gained given to the subject of agriculture.

But, I hear you say, not over ten per cent of the pupils of the rural schools ever get into the high school and thus the work that is omitted they will never get. Yes, this would be the case. There would be some of the pupils who would lose some eighth grade reading and could not have a very exhaustive knowledge of U. S. history. But they might even then know more of the important facts of history than if they had attempted to go into the subject beyond their depth as they are now doing. Then again, the largest proportion of the pupils of the rural schools who do not enter high school are those who never finish the eighth grade. The most of those who do finish the eighth grade go on to other schools. The difficult work given in the seventh and eighth grades is a barrier that keeps a great many pupils from finishing those grades and thus from taking up advanced work.

There will be some, no doubt, who will be of the opinion that by cutting out unimportant parts of subjects ample time could be secured without putting any work into the high school course. For instance, there are many parts that could be eliminated in arithmetic, physiology, in geog-

raphy and in grammar, as well as history. But there are many parts of the subject of arithmetic that are now not getting the time they should have. The time gained by the elimination of unessential parts should be given to parts that are now not receiving their due share of attention. How many pupils of the eighth grade can take a long column of figures and add them up rapidly and accurately? And yet their is more actual call for the process of addition in practical work than any other process. Or, as has been stated, how many can compute the feet of lumber needed in building a new barn or the interest on a note that is handed them on which some payments have been endorsed? We do not need to resort to supposition to know that there are few who can do this work. We will need, then, all our time gained in the process of elimination to patch up the weak places.

Physiology, which should be one of the easiest subjects on our course has proved to be one of the hardest to master. As large a proportion of pupils fail in physiology, if they are closely marked, as in any other subject. But why?

At a recent examination the question was asked, "Why should the body be frequently bathed?" The answer given was, "Because the body is covered with little insects, some of which die, and should be washed away so as to give the live ones a better chance." This came from a pupil of, at the least, average brightness, who had, to my personal knowledge, made special effort to do good work in the subject under the supervision of a trained teacher. Cells, scales, germs, protoplasm, nucleus, nucleoli, amoeba, cell plasm and cell lymph, are terms that were crowded upon her with such rapidity that, to her dazed mind, she had become a walking aggregation of germs and insects. Then followed tissues, white fibrous tissue, yellow elastic tissue, connective tissue, adipose tissue, osseus tissue, cartilage tissue, muscular tissue, nervous tissue, epithelium, until she was filled with wonderment how her little body can contain all those big things, and her teacher filled with dismay because her head couldn't. Is it any wonder that after four months of this abnormal cramming the child makes, upon examination, such answers as that just given?

Certainly elimination is needed here but not with the view of gaining more time for additional work in other subjects, but rather for better work in the subject in which the eliminations are made.

But hitch and twist and wiggle and squirm as we may the time element continues an unsolved riddle and always wil continue so, so long as the little white school house remains with its overburdened course and its timestarved program. Twenty years ago, yes, say twenty-five, it stood where it is today. There was the same congested condition of classes there as now, and there was the same mad race in progress with the rural teacher covering the ground with her mightiest strides that she might keep pace with her relentless opponent, "Father Time."

The bare waste of prairie stretched away on every side; no groves of trees rested the eye that scanned this vast stretch of nature grass; no beautiful houses and commodious barns had then been erected; no large bonanza farms garnered in the abundance of produce capable from the

fertile soil. The homes had just recently been established. The country was as yet undeveloped. Today a different picture presents itself. Marvelous changes have taken place. Waving fields of golden grain in place of the unbroken stretch of nature grass; large comfortable houses instead of shanties; good commodious barns in place of straw sheds; large prosperous farms in place of an unbroken waste,—but the same little white school house stands there the same as twenty-five years ago.

With the rural free delivery of mail, the farmer's rural telephone, the cream separator, the phonograph and all the modern conveniences already installed in the most of the rural homes, the average farmer would never think of going back to the conditions as they were twenty-five years ago. He would look upon that as a step back out of civilization. But the very conditions he had to contend with when he went to school in the little old school house, down the road a piece, his boys and girls have to contend with today. And it will only be when the people, and not the educators only, open their eyes to the fact of this lop-sided development and discover that the progress of our rural schools is at a comparative standstill; when they begin to realize that a graded country school is as much a possibility as a rural telephone or a rural free delivery; when the little white school house has served its day and in its place throughout the land two, four or six room buildings have been erected, then, and then only will the time element of our rural school have been satisfactorily solved.

THE DESIRABILITY OF INSTRUCTION IN THE ELEMENTS OF
AGRICULTURE IN SCHOOLS FOR RURAL COMMUNITIES

SUPT. E. M. SHERRY, ROLETTE COUNTY.

The farm—the best place on earth for a boy to be born and raised. Here is plenty of clear, pure, fresh air, unmixed with the dirt and smoke of the city; plenty of sunshine essential to bodily growth and vigor; the best food in the world and plenty of it; all the space that a good pair of strong, healthy, sturdy legs can carry him over. Here he can play out of doors for hours without coming into contact with things evil and impure. Here he learns independence, to rely on himself. The little schemes for his amusement are of his own devising. Here he learns to do the many little chores that make him a useful member of the family instead of an item of expense. Here he expands with the breadth of the prairies, and wallows in the shade of the grove watching the parent bird feed the young on the cabbage moth captured near his mother's garden. Here he watches his father prepare the seed bed on his broad acres that later will feed the boys in the city who do not know whether butterflies make butter; whether pumpkins grow on trees or on the ground; whether a duck roosts on a perch like a chicken; whose only conception of the latter is a yellowish something covered only with skin suspended by its feet in front of a butcher shop. Here he grows up into useful youth and manhood without acquiring the luxurious habits of waste and folly incident to city life. Here are the forces and conditions that enable us to say with pride of the great and good men that came from the farm. Here, indeed, is the only place for a boy to grow up, and here let us bend our every effort to keep him. Here is where we educate our boys and here is where 95 per cent of them will remain. To do what? Why, farm, of course. Farm how? Why, by religiously observing all the customs and traditions of his father and grandfather; plowing, sowing and reaping; plowing, sowing and reaping; plowing, sowing and reaping. Buying expensive farm machinery and using it ten to twenty days per year, then arranging them in a row out in the field near the barn, except a few scattering gang-plows, drags, cart-wheels, etc., that are no longer considered worthy even this consideration, left where last used, all to battle with the rains, the frosts, the snows and the elements generally the remaining 340 days of the year. Raising milk cows that yield three to five pounds of butter instead of ten to thirteen. Raising plug horses that sell for \$75 to \$125, at greater expense than would be necessary to produce better grades that would sell for \$200 to \$250. By feeding \$18 worth of milk to a \$7 calf. By plastering his farm with 12 per cent mortgages and finally ending up by selling his equity and moving farther west to repeat.

Is it desirable to change these conditions? As Hashimura Togo says, "I require no answer."

Agriculture, being the basis of all other industries, a knowledge of the science of that subject is essential to its successful operation. Much of the knowledge necessary to the successful management of the farm can and ought to be acquired in school. An acquisition of this knowledge will create an interest in the subject and tend to keep the boys on the farm. It will elevate the dignity of the calling to the high plane which it should, by virtue of its importance, occupy. It will result in a more prosperous and contented class of citizens. It will add to the wealth and prosperity of the state. An investment in knowledge pays the best interest. That kind of knowledge which is practical is valuable. A knowledge of agriculture is especially practical, therefore, especially valuable.

What about the minister who came into possession of a farm of thirteen acres with a \$7,200 encumbrance, and which would not support the two cows and one horse kept upon it? This farmer who was no farmer, but who had a proper conception of what a farm ought to do, began at once by studying approved and up-to-date farm methods. His first year lacked \$46 of paying expenses, but during the next six years he paid off the mortgage, and his farm was in such condition that it netted him a clear profit of \$1,500 to \$2,000 annually. He finally had to sell because his farming attracted so many visitors that he was no longer able to show them the proper courtesies and carry on the operations of his farm.

How about the young man who writes: "Before going to the agricultural college I worked with my father on our farm, which was about as productive as the average farm in our community. We frequently came face to face with problems that were too much for us. The realization of this led me to take a scientific course in agriculture. I finished the course and returned to the farm. We had one field that was considered the poorest in that community. While the neighbors got forty bushels of corn per acre, from land much better, I was able to get sixty-one and a half bushels from this field. My success was a revelation to the farmers and they admitted it. Now, what was the cause of this greater yield? Two things, scientific seed selection and scientific cultivation. I chose my seed with the greatest care and in conformity to the training I had received at school. The soil was thoroughly cultivated and handled according to the principles I had learned at school.

I had another illustration of what could be done on a field of wheat. While others were getting thirty bushels, I secured forty-one bushels on a field of twenty-one acres. Doing this two years, I next put it into corn, getting seventy-eight bushels while the crack farmers of the community was able to get but forty on land as good.

I figure that my first year out of school netted me a clear profit in cold cash of \$500, to say nothing of the improvement in orchard, garden, stock and the land. For after three years of scientific farming, our farm was in condition to produce maximum crops and it sold for \$15 more per acre than any other farm in that community was valued at."

But why are you telling us all this? Simply to show that farming, if carried on properly, does pay, and has many attractive features. Conceive, if you can, the joy experienced by these two examples of model farm-

ers in obtaining from mother earth such generous responses to correct treatment. Anything cultural in that? Anything worth while in this for our pupils to contemplate? If our farming, as carried on in the past, suffers so by comparison with modern methods, we ask, is it desirable to institute a change?

But why teach agriculture? Why not let the boys absorb it in their little experiences on the farm with whatever help their fathers may be able to give them? Because this has not proven satisfactory. But where shall we teach it? Well, as a very small per cent of our boys get any other schooling than that obtained in the rural schools and in the lower grades at that, it would seem that there could be but one answer, in the rural schools. In what stages? All along the way; for we know that all along the way, boys begin to drop out of school. And if we give them even a meager taste they may discover that this is just the very thing they wish most of all to become proficient in. They may go on as did the young man whose experiences were detailed above. Begin when? Why, as soon as we get back into the harness. Well, what will agriculture do for our boys in the rural schools? We want to know the truth, the whole truth and nothing but the truth. We may not be able to give you the whole truth, but we feel sure of our ground when we say that agriculture in the rural schools will awaken an interest in the work and life of the farm; show the progress being made in the improvements in farming, and give the pupils an outlook towards the agricultural college, the experiment stations and the numerous other agencies that combine to make his life work more inviting, more successful, more satisfying. The motive for teaching agriculture in the rural schools is to better qualify the boys for the practical work of the farm. How shall this be done? It will be desirable to have a text-book for the guidance of the teacher, who will, in all probability, be without special training. It will be helpful to the pupil in giving him a systematic view and fixing definite knowledge of the subject. It will be useful to the parents in showing them what such instruction really involves.

Every effort should be made to connect the instruction with the home work and life of the child. Now, if larger possibilities of farm life may be opened up to the child, why longer delay? Why longer deprive him of them?

Would it be advisable to convert the back part of the school yard into a thing of beauty and a joy forever? Instead of allowing weeds to grow up that require all the strength the big boys and teacher can muster to pull them after they have scattered their seeds over the adjacent fields, would it be worth while to break up this plat of ground next spring and allow it to mellow down with the spring rains and whatever encouragement might be applied by the neighboring farmer when he is discing or dragging his field in this immediate vicinity? Or can we conceive of a more subduing influence on a raw piece of prairie than seeding it to potatoes? This might prove an excellent starting point for the community for the introduction of simple agriculture into the schools. There would be but little work necessary with this first crop except to pull the

weeds. And this would afford an opportunity for the children to work off the surplus energy and buoyancy of spirits that would otherwise escape in the school room to the annoyance of all.

After the first crop is raised and harvested and sold to some near-by farmer who was too busy to raise enough potatoes for his own table, the proceeds used to fence the grounds for future demonstrations, we are in readiness to do something of a more general character next year.

Do not overlook the study of farm animals, their habits, care and treatment. Many excellent bulletins on just such matters are available, and if the schools will take the lead in calling for and studying these, it will be but a short time when the demand for better reading matter for rural communities will be many fold greater than at the present time.

It is related as a fact that a cattle buyer in East Buffalo a few years ago bought a shipper's consignment of cattle at a ruinously low figure by showing the shipper that their upper teeth were missing, and pretending that he thought the farmer was attempting fraud by not informing him.

It is not the province of this paper to tell just what we should attempt in this new scheme. That will be given by another member of the association. But without trespassing we may suggest some things that should not be omitted from the work of schools for rural communities. It may be designated nature study, home geography, fads or what not; but if it lead to a desire for more light, a more profound respect for things rural, a wider acquaintance with the very things that support life, and a desire to make our part of the rural community excel all others in providing more of beauty, comfort, lasting good and culture and happiness to ourselves and ours, a cherished hope may be realized.

We might suggest that pupils make tests of seeds for vitality and germinating qualities, for it is a demonstrated fact that the poor yields in fields is often due to much of the seed not germinating, or, having come up, proves of too low vitality to successfully withstand drouth, choking by weeds and the attacks of insect enemies. They might plant a few beans, and after they are two or three inches high, pull off the half beans from some and leave them on others and note results. Let them plant a few seeds at different depths in glass jars near the sides of the glass, for the sake of observing the depth different seeds do best. Have pupils learn well the conditions of germination, learn the names of the elements of plant food; try to give them some knowledge of the nature of these. Have them plant corn or beans in water, mark off half-inch spaces on the roots and note where growth takes place. This will show the farmer that deep cultivation will prove injurious. Give little extracts from bulletins and have pupils write reports upon and read to class. Let pupils make observations as to the use and abuse of farm machinery, write these up also. And they might bring into requisition their arithmetic, by computing the verage number of days a binder, drill, gang-plow or other piece of machinery works before it is discarded, and see whether it is more expensive to properly house them than to replace them with new ones. This might prove a revelation to some farmers.

We might screen the out-buildings and other unsightly places with vines, as the wild cucumber, hops or any others available. And who will say that the doing of which and reducing to writing these little experiments, illustrating with their own drawings being able to tell about these things, will not be as valuable and as cultural as the study of sea-island cotton?

If we can get our teachers and pupils and patrons interested in the school environment, converting waste places into school gardens, and plats where easy and profitable experiments may be carried on; planting trees, fencing and caring for them by cultivation according to the best methods as outlined in the bulletins issued from the department at Washington. our own and other state agricultural colleges and experiment stations; having pupils write up their experiments and observations with illustrations, and telling in simple, straightforward language what the work in elementary agriculture is doing for them, it will be but a short step to get patrons to meet with us at stated times in the evening and listen to the children; suggest points for observation and investigation; offer to co-operate with the teacher and pupils by giving of their expenieces, encouragement and a portion of their time to help the good cause along. We will soon have our school houses a sort of center of interest to the entire community; a sort of rallying place for the discussion of recent events, newer machinery, newer methods and discoveries in the work of nearest interest to all.

It is no experiment or idle dream. It is done in many communities and the verdict in all cases where the work has been well done is, that it has given most satisfactory results. And, whatever has been successfully done by other teachers, can be successfully done by the teachers of North Dakota.

DESIRABILITY OF INSTRUCTION IN ELEMENTARY AGRICULTURE IN THE SCHOOLS OF RURAL COMMUNITIES.

SUPT. FREDERICK DAVIS, ADAMS COUNTY.

In the great and wonderfully progressive state of North Dakota, ninety per cent of whose people get their living and make their money from the ownership, tillage and pasturage of the soil, we teach our children to read, to write and to spell, which is important; we teach them geography and grammar and history, and arithmetic and civics, which are important, but we neglect shamefully even the rudiments of an education along the lines which ninety per cent of these same boys and girls of ours will assume for their life work.

The crying need of our state is for more and better text books along the line of agriculture. Why not have instruction and problems in the balanced ration for domestic animals, why not have problems in the common work of the dairy, problems that every systematic farmer, whether he pretends to farm scientifically or not should know, inserted in the arithmetics?

Would it not be a satisfaction for all, would it not be a matter of millions of dollars to have every farm boy and girl familiar with the simple principles of clean, scientific dairying; with the Babcock milk test, a test of the richness of milk that is absolutely accurate and so simple that every farmer and dairyman worthy of the name should be familiar with it? It is a beautiful process; the accurate measurement of the cu. cms. of milk and sulphuric acid, the chemical action of the two producing heat and setting free the fats which are brought to the surface by centrifugal action and measured in the graduated bottle neck. Is it necessary to argue the value of practical demonstrations of the Wisconsin Curd Test, for detecting the impurities in milk? Would it be expecting our boys and girls to be too well educated when they leave the rural schools, if we should teach them the stories of the great herd and flock registries, if they learn the value of the pedigreed sire, tracing his ancestral line back through a succession of excellent families perhaps, to some magnificent old specimen of his kind, the founder of a breed, upon the flocks and herds of North Dakota?

Would it not be a great benefit to the schools if we were to secure a line of teachers willing and capable of selecting the best animals of their kind in the community and presenting the good points, the characteristic points, the valuable points of each, to his classes?

Would it not be a decided benefit to our schools, and this is not all said in jest, if we could secure teachers who would know that it is through no fault of the fertilizer that beans grow, when put in the ground, by pushing the bean itself upward, to open at the surface into the first pair of cotyledons; that the rough cover of the best seed often encloses a

dozen little beet plants waiting to grow; that the melon and the squash and the pumpkin seeds, when they grow naturally, come up with their heads meekly bent, in order the more easily to draw off the hard shell of the seed, and that some of these pods are actually forced off by being caught on a hock or projection on the stem of the plant placed there for the purpose by Him who made the seed? If we could secure teachers who know well the story of the Leguminosa and the tiny bacteria that cluster at their roots taking the free nitrogen from the air and rendering it fit plant food, both for the clover plants themselves, and for the corn or the wheat or the potatoes that should follow, and how a single crop of clover or vetches or cow-peas may by means of these little bacteria vastly increase the crop of the succeeding year, would it not be worth while?

Would it not be a benefit to the state if all our country boys, and girls too, when they leave school, knew the best methods of propagating and handling fruit and nursery stock? A small boy in an eastern state with a handsaw, a jack-knife, a few scions and a lot of waste ground, started an orchard that today markets many bushels of fruit.

Is ignorance of these matters the ignorance that is bliss, or is it the ignorance that means discontent and drudgery, and anxiety and draining of farms of the young, strong, intelligent blood in which alone rests the safety and prosperity of our state? This is not a question of sentiment alone; it is not a question of small moment. It is a real, vital dollars and cents question. A question the responsibility for which we cannot morally escape from assuming before the boys and girls of today, the men and women of tomorrow. How shall we answer it?

As one of the newest county superintendents of one of the newest and one of the best counties of North Dakota, a county that leads the counties of the state, alphabetically at least, I stand before you to plead for more agriculture in the schools of the state. Whether or not this body shall take any action in the matter will in nowise affect my determination to advance the work in my own county to the best of my ability.

A moment ago I said, "this is not a question of sentiment alone." We Americans, in the northwest especially, are apt to look closely into the practical, the utilitarian side of every question. The superficial embellishments of speech and manner thought necessary to complete education in the east have by the exigencies of life here, been relegated to a secondary position in our consideration. We hold our code of ethics, our philanthropy, our altruism in higher esteem, yet we are not perfect in these. Then if it be the fact that true refinement and culture spring from purity of thought and motive, and that these altogether desirable qualities are cultivated or suppressed by the education afforded the child, according as it is good or evil in tendency, shall we not open the book of Nature, and through that of Nature's God to the boys and girls of the state? Is there anywhere a more ennobling theme? Where in all literature will you find more beautiful thoughts, more exquisite similes than are drawn from the homely and seemingly dull surroundings of the country? Seemingly dull, I say. The average city bred man can see little of interest on the farm. Alas! many a farmer is alike blind. He sees in his animals only a hog, a sheep or a

cow. He knows that, planted after clover more corn can be raised, that after summer-fallowing more grain will grow on an acre but he doesn't know the beautiful stories in explanation of the reason for these facts. He knows that the dairy cow with the large test is often better than the dairy cow with a large yield of milk, but he could not make the test if his life depended on it, poor fellow! He hasn't been educated in his business. He is the real "Man with the Hoe."

Agriculture, as it is known to science, is a great subject of many departments and branches. In the study of agriculture in its completeness it is necessary to learn of nature in its entirety, and of man in most of his activities, therefore, we must pick and choose the lines along which we should teach. Away with too technical a knowledge of physiology for our country schools. Teach the children sufficient hygiene to enable them to care for their bodies. Teach them that liquor in all its forms is, when used as a beverage, debasing, both to body and soul. Away with too technical a study of grammar in our rural schools. Language work? Yes. We need that, but is there anything that has ever been said or written to prove that good logical beautiful English cannot be written or spoken without a technical knowledge of grammar? Away with any attempt to teach any complicated system of bookkeeping, but ground the boys and girls thoroughly in every practical business form and transaction. Away with history except sufficient to arouse in the breasts of the children patriotism and reverence for our country and its institutions, and desire to emulate the deeds and achievements of her great men, giving preference to the victories. Civics? Let them read? Let them know the laws, their makers, their interpreters and their executors, and in connection with all these, teach them the things that lie nearest; the things that, through familiarity, they have never observed nor had brought to their attention, things that, as future citizens of the country, not the city, they can treasure as the foundation stones of a life work of interest and profit to themselves, to the state and the world.

THE TEACHER AND THE TEACHING OF AGRICULTURE.

SUPT. B. O. SKRIVSETH, NELSON COUNTY.

The last few years have witnessed a strong interest in the so-called vocational subjects. It started early in the universities, where colleges of agriculture, mining, engineering, law and medicine have encroached themselves upon the attention of prospective students to such an extent that the attendance in the colleges of letters and science has been greatly reduced in many schools.

This movement has gradually spread itself into our normal schools where stenography and typewriting are now being studied, and still further, into the high schools and some common schools where manual training is beginning to attract attention.

In an agricultural state it is but natural that the subject of agriculture should be emphasized. Thus it is that in several counties corn-growing contests, school gardens and the like, have been experimented with. Many claim they have had great results from these efforts.

In the midst of this some over-zealous pedagogues raise the cry that our school system is managed for the benefit of the towns and to the detriment of the country, and so we go at the problem with renewed energy. An outline for the study of agriculture is included in our course of study for the common schools but somehow it does not seem to have any effect. Why? Well, it is the teacher that is at the bottom of the trouble. She does not see her way clear to teach how to grade corn and wheat and oats. Nor does she know very much more about the various kinds of wheat than her pupils do. They will learn it anyway without her help. Her technical knowledge of the various plant diseases, insect pests and weeds is limited, or she does not have the necessary apparatus and material that is needed to do any effective teaching. When it comes to the study of the various breeds of horses, cattle and hogs, somehow it does not seem to do much good to talk about these things in the abstract. Concrete subjects are needed and it is not easy to secure an exhibition of the various types of animals at the school house. Then there are other equally difficult things to look into such as birds, forestry, roads, gardens, soils, all of which require special knowledge and conditions, and then finally, how can time be found in our already overcrowded course to devote to these things. And so the general result is that the work is neglected. She gives it up in despair. She sees that in order to do what is required she must be a chemist, a botanist, a geologist, a horse doctor, a farmer, and what not. And again she concludes to let agriculture take care of itself. But still the reformers continue urging the teaching of agriculture.

Many conditions exist which make the work difficult to undertake. First, most of the teachers have no knowledge about the subject. They are generally willing to do their best but they have never studied the elements

of agriculture when they went to school and they do not see how to go to work and teach a subject which requires so much work and material.

A second difficulty is that most schools operate during the winter, thus making the study of the subject exceedingly difficult, especially in a country school. This cannot be overcome unless the teacher makes preparation for the work during the summer by collecting her material. But when most of them do not know before late in the fall where they are going to teach or whether they will need any such material it is not surprising that they do not make preparation.

Another difficulty is the question of time for the work. This is not so much of a difficulty as we may think. In our present course of study there are outlines for the different subjects of nature study, agriculture and geography. None of these subjects are outlined in relation to each other and the result has been that these subjects could easily be grouped together under one head and made to work out so that each will help the other. Perhaps some plan as the following could be found to serve the purpose: Start the work in nature study in the third grade, gradually introduce the agriculture work so that it predominates in the sixth grade and in this grade gradually introduce geography so that it will predominate in the eighth grade. Or we could reverse the order, giving geography before the agriculture. The main thing to keep in mind is that these subjects are very closely related in the country school and can be taught very well in this way. There are also some things in our common school course which could perhaps be changed or eliminated entirely so that there will be more room for this course in geography—agriculture. Such as our present course in grammar, and a great deal of our arithmetic which is interesting enough as a mental drill but has but little value for people that live on the farm.

If in addition to this modified course we require the teachers to pass an examination in this work they will make preparations for it.

The same might be said about our common school final examinations for the pupils. If they have to pass an examination in this subject before they get their common school diploma they will most surely make an effort to study the subject in earnest.

The language work in the early grades could do much to reinforce the agriculture work. As subject matter for composition there is just as much interest in some of the topics relating to agriculture as in some of the commonly used topics.

A good deal of the work can be done in other ways. The reading class can do a great deal. So can the class in arithmetic.

Then another thing which can be done is to give as much knowledge as possible as to where and how to get the material. There are a large number of publications issued by the U. S. department of agriculture which will be of help to the teachers. In Illinois, C. M. Parker publishes a series of agricultural leaflets for school use. Some of them are practical, although some are too theoretical to be of much value in the common schools. They also contain information in regard to other material. Perhaps the county superintendent could assist the teacher in getting material of this kind.

It might be well to make the outline in the course of study very specific to begin with for the benefit of those teachers who are not experts in

agriculture. For instance, it is not enough to state that we are to study weeds for a certain month. It would be more helpful to specify what weeds to study and what to study about them. After this is done leave the teacher free to supplement as much as she may wish. The same suggestion applies to the study of grains, grasses, seeds, insects, plant diseases, etc. If all our teachers were professional agriculturalists, this plan might not be as good as some other but with existing conditions more can be done in this way than in any other way. Many things can be left out which seem to be entirely useless or impractical in the schools such as the score card which does not materially assist the child in his pursuit for knowledge of how plants grow.

It sometimes seems questionable whether many writers fully realize the difficulties which the teachers encounter in the teaching of this subject. In the December number of the *Westland Educator* there is a very good and scholarly article on the subject of breeds and types of cattle. If one were to teach the facts presented in this article in one of our country schools he would soon find that it is exceedingly difficult to present them in such a way that it would in any way improve the children in the vocation of agriculture. The main things to be noted in the article are that there are some six or seven breeds of cattle which have come from three or four countries in Europe. Whether this will make the pupils better farmers is hard to tell. Then the cattle are classified again into three groups, namely, beef, dairy and dual. Most people know this before if not in so many words. Then follows a description of a few of the types of cattle.

I have gone into detail about this article in order to bring out the point that it is very difficult to make much of an impression upon the child's mind without having these several types of cattle before the pupils when the description is made about them. We could talk for weeks about points and types without accomplishing anything but a tiresome memory exercise. I believe more can be done in the line of giving the pupils a knowledge of breeds of cattle by having county fairs and state fairs than by any amount of theoretical study of the subject in the country schools. If a school should happen to be located near a good stock farm then something could perhaps be done, but most of our schools are not so favorably located.

In our course of study there is prescribed the study of milk and the preparation of butter. I wonder how many of our teachers have any facilities for teaching this subject in our schools? They might talk and talk about this subject for months to the children, but this would do very little more than tire them. The same thing may be said about many other equally valuable topics. Something more than mere discussions are needed. We must have apparatus and material to show the pupils what should be done. If this is not possible then it is better to leave it out of the course of study entirely, or else it will only serve to discourage the teacher as well as the pupils.

So much for the course of study. In regard to the schools from which our teachers come: the normal schools can do a great deal by emphasizing the subject more than they have done in the past. So can the sum-

mer schools for teachers. The high schools can extend their course in the sciences so as to make agriculture a subject of equal importance with the other sciences. Most of our teachers come from the high schools and if they know that they will have to pass an examination in agriculture before they begin teaching they will surely make preparations. To make the work in the common schools worth anything we must have the teachers that can do the work, and in order to get the teachers the schools from where they come must give the courses that are needed.

No doubt it is easy thus to suggest a general outline and when we come to the execution of this fine plan there will be difficulties enough to encounter. But even though we may not be able to make all the changes we may wish we can at least make a start.

To summarize we have the following: First, an outline in the related subjects of nature study, agriculture and geography which will cover the whole field as fully as is practical in the country schools. Second, an examination test for the teachers that will cover the whole of these subjects. Third, introduction of the subject in our high schools, normal schools and summer schools so that the coming teachers will be prepared for the work; and, fourth, monthly and final examination for the pupils in these subjects in the same manner as in the other common school subjects.

GENERAL DESCRIPTION OF A COURSE OF INSTRUCTION IN AGRICULTURE FOR RURAL SCHOOLS.

PROF. J. H. SHEPPERD, AGRICULTURAL COLLEGE.

The rural schools as at present organized consist in eight grades or classes of one year each. In this discussion I wish to divide them into two parts, the first embracing the first six grades, and the second the seventh and eighth grades.

In the first six grades I would suggest that nature study be introduced. It is not, according to the general terminology, my province to discuss the work of these first six grades, but, according to my own ideas, I am warranted in doing so. My belief is that nature study well taught will commingle the economic and useful with the interesting; the natural and scientific so thoroughly that, under the guidance of the more successful and expert teacher, the pupil will scarcely realize when his nature study ceased and his agriculture began. The fact is, ladies and gentlemen, the best, most impressive, most practical and useful lectures that I have listened to upon agriculture had so much of nature in them and natural law that they compared favorably with the best nature study lessons in that particular, while they were really down on the purely productive basis, i. e., teaching how to make the dairy cow earn an extra income, how to produce more valuable horses and wherein and how clover growing enriches the farmer who sows it.

Let me quote from two admirable lectures on nature study and agriculture respectively, so that you can see how they parallel in essential features.

First the nature study lecture:

"The squirrels of North Dakota are separated naturally into two well-defined groups, the 'true squirrels' and the 'marmots.'

"For the sake of convenience the true squirrels may be sub-divided into the tree squirrels, the rock squirrels, and the ground squirrels. Of the tree squirrels one of the most interesting forms is the little Chickaree. Slender, lithe and active of body, full of animation and curiosity, he is an object of never failing interest as he runs nimbly up the tree trunks and through their branches, waving his tail over his back and scolding and barking excitedly at those who have dared invade his realm. His winter home is a leafy nest hidden away in a hollow in some old tree and provision has been made for the winter's need by storing nuts and acorns in cracks under the bark and beneath the fallen leaves.

"The chipmunk will serve admirably for a type of the rock squirrels. You cannot fail to recognize this wide-awake little fellow dressed in his bright reddish brown coat, paler beneath and marked along the sides with a stripe of yellow-brown and margined two two stripes of darker hue.

"The woodchuck or ground-hog is the most typical representative of the marmots in North Dakota, but the prairie dog also belongs in this group. The woodchuck is a snarly, rather stupid and uninteresting fellow compared with his more lively relatives. In the summer he delights in lazily basking in the sunshine near the mouth of his burrow on a hillside. During the autumn he stores fat under his skin, and as the cold of November approaches betakes himself to his burrow for the winter."

Now let me quote from a lecture on dairy cattle:

"Behind me you see hung two crayon sketches of two distinctive characters of cattle—on the left the Jersey cow Mathilda 4th, that has made in one year more than her weight in butter, or over nine hundred pounds; the right, a Hereford cow. Both are drawn from photographs.

"Form Everything to Purpose. Now, the question comes practically, to the farmer and the dairyman, seeing these two machines, and observing differences in shape, why is it that with universal agreement, one machine takes one shape and the other machine takes the other shape? It may be answered, "why is it that a sewing machine is different from a reaping machine or a threshing machine? I repeated to you last night the remark of El Hassen about the horse, that 'form is everything to purpose;' and if I could get the farmers of Wisconsin to indelibly burn that simple statement into their minds, I would put in their possession the key to all their future success in the handling of farm animals.

"Temperament. I base, in my studies, the dairy function in cattle upon temperament, and temperament produces form. I stand before you today a man of nervous-bilious temperament, and men of my temperament almost universally are of like form and characteristics.

"Another man stands before you with a short neck, short thick fingers, heavy jawl, and fleshy build and he is the product of the lymphatic temperament. Now, temperament shapes form, and form shapes function. The race horse in horses, the fine wool sheep in sheep, the hunting dog in dogs, and the dairy cow in cattle, are the products essentially of the nervous temperament.

"The bull-dog in dogs, the draft horses in horses, and the beef animal in cattle are essentially the product of the lymphatic temperament. So you see that by first going back physiologically to the beginning of things, and taking temperament to build upon, you have a start by which you can determine the reason why function swings one way or the other. Then, carry that out right practically a little further, and you will see that if you breed for the dairy you must breed to temperament, if you breed for beef, you must breed to temperament, if you breed for draft, you must breed to temperament, and if you breed for speed, you must breed to temperament. * * *

Note that both describe form and classification by means of form. Note that both refer to temperament, note that both make full use of a good education, and flow of language in well rounded sentences and interesting descriptions to enlist the attention of their auditors.

Of course the one who has the more mature students limits his descriptions slightly more to the essentials, while the one with the younger stu-

dents gives them the attractive things, even if they distract slightly from the subject in hand, realizing that without interest you accomplish nothing. I believe the nature study of the first six grades should be carried upon economic lines, departing only enough to keep up interest and to show general features of relationships and the philosophy of nature. For the seventh and eighth grades which are rapidly growing to consist chiefly of quite immature students, I would advise the introduction of elementary agriculture only and the development of that subject in quite full form. Until such time as we can find our way to have consolidated rural schools, where several teachers will be engaged in a single building, we cannot expect that the teacher will be qualified to do more than the teaching of elementary agriculture, nor will she be equipped with apparatus to do much more if she does know how it should be done. Then too, we do not pay enough to get one who is well qualified for this work in addition to what we now require.

One of the chief objects will be secured if the teacher has done the work well up to the end of the eighth grade. Interesting the student in agriculture, natural laws and the wild and domestic life which beckons to him on every hand, means a great deal for his future. When this result is accomplished, ladies and gentlemen, the question, "How to keep the boy on the farm" will not be flaunted at us on every hand only to echo back unanswered to the questioner. Interest him, show it to him as it is and quit tacitly teaching him that the income is small and the drudgery great for those who reside in the rural communities. It is easy to make a strong impression on the boy by giving him an idea of the grade of entertainment which city people have access to and by quoting their gross incomes—taking care not to mention their net returns.

Teaching agriculture must depend primarily upon the ability of the teacher, but the supply of books now available, which cover part of the work which I am discussing and including material adapted to the northwest, also descriptions of simple apparatus, leave little except natural inclination and lack of preparation as features which should cause teachers to fail in presenting this much neglected and fundamentally vital subject.

How much should the school garden and outside land culture exercises be introduced in the rural schools has been a much discussed question. First of all let me say that it is manifestly unwise for the teachers to undertake any feature of this kind which she does not thoroughly understand, as many of the pupils and their parents are critical and will not overlook failures even where the cause is evident. The school is not in session long enough during the growing season, and the school gardens cannot be cared for during that time, hence it is apt to have a neglected aspect during a large portion of the year and be too immature to be satisfactory when the term closes. For an instructor who is no better qualified to demonstrate on live stock breeds and types than the average rural school teacher—to attempt to do so is a mistake, as she will find herself attempting to teach a subject which the pupils know more about than she does.

I believe that the practical exercises must be confined to the more simple things, except in cases of unusual ability on the part of the teacher. Such outside demonstrations are very much to be desired when they can be carried on right and nothing will do more to interest the students and inspire confidence in the parents when it is well done.

County corn, potato and strawberry contests carried on in the different counties are doing immeasurable good where they are well managed. They constitute a feature of the work which should receive a full discussion and exposition in this meeting for some of you succeed in getting almost every pupil to mature and present an exhibit, while others realize a small percentage of samples for the number who enlist with you in the spring time. There is a secret to this which should become commonly known.

While I am on this topic permit me to say that I believe a wheat growing contest can be carried out successfully by offering prizes for the best ten and the best single heads of wheat. The seed of each boy's display can be returned to him for sowing for a second year's trial, and in this way you will have an interesting accumulation of data and well bred seed wheat produced by each boy. It will incidentally soon give his father quite a lesson as well.

Our rural schools have five and one-half hours per day net time for work. It would seem to me reasonable that an hour per day or its equivalent by longer periods less frequently taken be spent upon nature study in the first six grades and a similar time be spent upon agriculture during the seventh and eighth years.

There are at least a dozen books on elementary agriculture for public schools besides a great many descriptions of practical exercises of a simple nature which can be worked out by amateurs and with little apparatus. One of these books contains 236 exercises. It is a line of work which necessarily depends to quite an extent upon the ingenuity of the teacher, but with the apparatus and information which are now available, any active teacher should be able to present in a satisfactory manner the work which I have outlined.

It is a little hazardous at this time to attempt to give the proportions of time which should be assigned to a given crop, class of live stock, soil, or other feature.

The elementary text books vary so widely that they cannot be taken as indicating more than that those who write them differ widely in their opinion on this point. I would, however, suggest the following: Thirty-three per cent of the time be devoted to field crops and weeds; thirty-three per cent devoted to live stock and dairying; ten per cent to soil; twenty-one per cent to horticulture, home and school grounds; three per cent to roads and farm machinery. It may seem that I have proposed a very small percentage of time to soils, but I do not believe I have underestimated their value and importance. I have had two things in mind; first, that it is not an easy thing to teach soils for one situated as the rural school teacher must be; and, second, that to teach the other subjects mentioned, a great deal of attention must be given to the maintenance of soil fertility, cultivation of the land and other points which means that the soil has already been given, in an incidental way, a good deal of time.

ELEMENTARY SCHOOLS AND GOOD CITIZENSHIP.

SUPT. L. A. KAMPEN, GRIGGS COUNTY.

Every child in our schools is a citizen and will in time come to perform or to neglect the duties of citizenship. What vocation as a livelihood a boy or girl in the elementary schools may adopt, we cannot know; but we do know that the vocation of citizenship will be thrust upon every one of them. Since the civic duties will later in life demand the attention of every one of the pupils of our public schools, it is clearly one of the legitimate businesses of said schools to train the children to perform properly these duties.

It is not necessary to multiply reasons for this kind of vocational training. I assume that educators and citizens in general are agreed on the necessity and the propriety of training for citizenship the child in the elementary schools. However, I wish to point to the difficulty of justifying the support of the schools by general taxation, unless the schools offer such training as shall result in producing helpful and public spirited members of society. If a graduate of our common schools does not become a better citizen because of the training he has received, then the school has failed in its chiefest mission, and the main reason for its existence disappears.

I believe that it has come to be accepted as an axiom that under our form of government the ignorant person is less desirable as a citizen than the intelligent person; that the untaught, unenlightened, illiterate, ignorant citizen is a menace to free government. Education, according to Edward Everett, is a better safeguard of liberty than a standing army. The elementary schools must gather up all the children of the state and train them in such studies as shall tend to develop concentrated attention, accurate and discriminating observation and sound judgment, in other words, the elementary school must train intelligent citizens. This must ever be the main object of the common schools. I believe that if we can place in our schools all the children in the state and keep them there, under efficient teachers, until they shall have finished the course, or at least the major portion of it, then we shall have done a great deal toward insuring the continuance of free government by training intelligent citizens. In suggesting ways and means by which the elementary schools may become more useful in training for good citizenship I shall therefore begin by laying down this proposition, that whatever is done to improve the general efficiency of the schools for educating the children of the state, that also increases the schools' usefulness from the patriot's standpoint, by raising the intellectual level of the citizens. Our first concern, accordingly, is to see to it that the schools are made as effective as possible in training the pupils in all the common school studies.

The members of the constitutional convention that adopted our state constitution made provision for the establishment and maintenance of our system of public schools, because they believed that the work of the schools in training citizens was necessary in order to insure the continuance of popular government. They looked to the schools to educate the masses of the people so that government of the people, by the people and for the people, shall not perish from our state.

A person who has been trained properly for the duties of citizenship should have as thorough a knowledge of the principle, function and structure of government, from the methods of regulating the simplest of local affairs to the methods of dealing with the more complex state and national affairs. He should know the history of our nation in order that he may have a vantage ground from which to gain a clear view of the important political questions upon which he must pass judgment. He should also be aware of the dangers which beset our free institutions; the various evils, the germs, microbes and bacilli, which prey upon our political and social organism.

The branch of study from which the pupils in the elementary schools should get a knowledge of the nature and actions of local and central governments in their various ramifications is the study of civics. Our state course of study outlines the work in this subject and the time given to it is five months of the seventh grade. I have found that among the common school graduates the ignorance of civics is the most dense, even surpassing in density the ignorance of technical grammar. I verily believe that on the day of the final examination for the common school diploma, for every one pupil who can give an intelligent account of the form of township government there are two pupils who can give correctly the syntax of the italicized words in this sentence, which occurred in the December examination in grammar: "He did not *expect* to *see* the teacher *make* the boy *recite*."

I have no quarrel with the study of formal grammar; I believe it would weaken the common school course if it were cut out. But if we are to be true to our mission of training serviceable citizens, we should give the pupils a real knowledge of civil government by putting greater emphasis on the work in civics and possibly devote somewhat more time to it.

I believe it is true that the more thoroughly acquainted a person becomes with a subject, the more interested in it he becomes. Therefore, if we want to make the pupils more interested in public affairs, we can do so by giving them an opportunity to get a more intimate knowledge of how public affairs are managed.

The study of the history of our nation is most valuable in arousing a genuine interest in the welfare of the commonwealth. It is through history only that we can gain a clear understanding of our form of government. If history is studied aright, it cannot fail to make the student a better citizen than he would otherwise be. The value of the study of history cannot easily be overestimated. It is unsurpassed as a means of creating love of country, a genuine feeling of indebtedness to the past and a deep sense of obligation to the present and a solicitous care for the future of our country.

Plenty of time is allotted to this subject in the course of study, and I think the work outlined is on the whole very good. But in spite of the large amount of time given to history and in spite of the general excellence of the course outlined, still the result is anything but satisfactory. The average common school graduate is quite innocent of the fact that history is as interesting as a romance; he has never grappled with the problem of interpreting the experience of the past into foresight for the future; he is not overwhelmed with an ardent desire for worthy achievement because of the inspiration received from noble words and works of the great characters of history.

When I think of the net proceeds of the four years of study of history in the elementary schools, I am reminded of a cowboy I once fell in with on the Montana stock ranges. As he tragically kicked at his telescope canvass suitcase, he said: "There is the result of ten years of hard hustling." The case contained only a few old clothes.

History is one of the important school studies and certainly the most important in developing good citizens, but the fact that it is also the most difficult subject to teach may help us to explain the failure to get better results. "English as she is spoke," is a very popular subject for discussion. A like popularity might be secured for the subject of "History as she is taught."

I feel that if we shall make the elementary schools more useful in training a higher type of citizenship, we must depend upon the study of history to furnish the knowledge, the ideals and the inspiration which can set up a mode of thinking which will result in more wholesome attitudes toward public questions and problems. But if the teaching of history shall accomplish more than the fixing in the pupil's memory a few historic events, it must be so conducted as to become a vital force, a power in shaping character.

In a recent bulletin issued by the Mayville Normal School, Chas. M. Correll lays down the requirements of a teacher of history in the seventh and eighth grades. Among other things he says: "In the first place, the successful history teacher must be full of her subject. She must know much more history than merely what is contained in the school text. This observation would hold good for any subject, but it is probably peculiarly true as to history, for the best text books furnish little more than a mere outline, a skeleton which is likely to be rather dry and uninteresting unless filled in and enlivened by the addition of incidents, connections and general background, by either reading on the part of the pupil or by class explanations given by the teacher. Of course, the pupils in these grades should be encouraged to read from the large standard works such as Bancroft, Schouler, Ridpath, works on special periods and particular sections, and also from good historical fiction, but a great deal of such reading cannot be expected and very little of it is ordinarily secured, hence the teacher must be able to clothe the dry bones of history with the flesh of life if she would impress on the minds of her pupils the lesson desired. It is not sufficient that she read the text book nor even several text books, she must have that breadth of knowledge and grasp

of the subject which comes from wide and thoughtful reading. She must know more history than her pupils could be expected to learn. Her well of historical knowledge must be so deep that neither she nor her class should feel at the close of a recitation that it had been pumped dry. These are commonplace remarks, yet all who have visited public schools have heard history recitation in which it is evident that the teacher's knowledge was confined to the brief paragraphs of the text, and with the source of information and inspiration so low, the current of interest and profit has been correspondingly slow and sluggish." Not all the teachers in the common schools meet these requirements.

The young citizen should know what enemies threaten the well being of popular government; what germs breed disease and death and bring about the decline and fall of nations. If corruption of the suffrage becomes open and notorious; if the buying and selling of political favors and privileges becomes the order of the day; if dishonesty, machinations of degraded politics and infidelity to public trusts flourish unchecked; if class hatred, extravagance, predatory wealth and special privileges are greatly in evidence, and if indifference to abuses and disregard for law become general among large masses of the people, then the patriot should know that there is serious danger threatening the very life of our free institutions.

I have mentioned the study of history and of civil government as the leading formal school subjects for the training of good citizens. Incidentally a great many things should be made to contribute toward developing the moral uprightness which makes great nations possible. I will suggest the use of patriotic songs, current events and the proper observance of public holidays as excellent means of firing the young hearts with that kind of patriotism which results in disinterested love of country and steadfastness in our national mission.

The conclusions I have arrived at are these:

1. In order to make the elementary schools more effective in preparing pupils for citizenship and for society, we must raise the efficiency of the schools in teaching all the common school studies, so that the average intelligence of the citizens will become greater.

2. History and civics should be so taught as to tend to develop public spirited men and women; so taught as to prepare the student for society and for citizenship. That the study of these subjects is very largely a failure in producing these results is not due to any inherent weakness in these courses, but to the lack of strength in the teachers.

3. Patriotic songs, current events and public holidays should be utilized for instilling those civic virtues which are necessary to counteract all destructive tendencies in modern public life.

In conclusion I must confess that I am not one of those who believe that we can absolutely shape the temperament of the citizen or change the destiny of the nation by prescribing or altering a course of study for the public schools. Besides the schools there are many other forces, equally potent, at work for good or for evil. But I do believe that the efficient teacher can do a great deal for the young American citizens by seeing to

it that they get the knowledge necessary for the intelligent discharge of all civic duties, and by arousing in them the desire to emulate the virtues in which our nation had its birth.

If this is not accomplished in many of our elementary schools at the present time, it is because we have altogether too few efficient teachers.

DEPARTMENT OF
SCIENCE AND MATHEMATICS

MINUTES

OF THE DEPARTMENT OF SCIENCE AND MATHEMATICS.

The second annual meeting of the department of science and mathematics teachers in the N. D. E. A. was held in the geology lecture room, Science hall, Agricultural college, on November 7, 1908. The order of events was as follows:

10:00 a. m. to 12:0 p. m.—Papers and discussions.

12:0 to 12:30—Viewing exhibit of apparatus and listening to demonstrative lecture.

12:30 to 1:15—Lunch at the A. C.

1:15 to 1:45—Viewing exhibits and the A. C. grounds.

1:45—Papers and discussions.

About fifty members were present. The papers were to the point and were indicative of life and growth in the teaching of sciences and mathematics. The discussions were liberal and gave evidence of difference of opinion. Surely the meeting will result in much benefit to the teaching in North Dakota.

Those present who registered were: D. E. Willard, T. D. Beckwith, F. C. Householder, W. B. Bell, H. W. McArdle, H. F. Bergman, A. D. Weeks, T. H. Sheppard and K. S. Keene from the Agricultural college; C. C. Schmidt, G. W. Stewart and E. F. Chandler from the state university; M. N. Pope, H. F. Butterfield and C. R. Travis from state normal at Mayville; Lynn B. McMullen, state normal, Valley City; E. G. Burch, state science school, Wahpeton; Aaron Heyward, Cavalier; Richard Heyward, Grand Forks; J. F. McLain, Towner; B. B. Maston, Horace; F. L. Simonton, Alice Tierney, Emma Fiozelle, Jennie Champine, Mrs. Mattie M. Davis, Honora Sutton and A. W. Bean of Fargo; Roberta Brown, Tower City; Jesse French, Buffalo; John M. Johnson, Hillsboro; Nelson Sauvain, Casselton; Genevieve M. Holkesvig, Cavalier; H. L. Lockwood, Enderlin; Mrs. Kate Whitcomb, Hankinson; A. G. Crane, Jaemstown; A. G. Muller, Portland; F. M. Sherarts, Larimore; Geo. F. Forster and Mrs. G. F. Forster, Harvey; Allen A. Maxwell, Harvey. Besides these there were several others who did not register. Professor Stanford of the normal in Moorhead was present.

At 10 o'clock Dr. Stewart, president of the association, called the meeting to order and introduced Professor Bolley of the Agricultural college, who delivered an address of welcome.

By motion it was decided to have papers on mathematics given first. The discussion on these papers to be heard after all papers were read.

Miss Sutton, of Fargo high school, read a paper upon Important Points in Teaching Elementary Algebra.

Since the other writers of papers upon mathematics were not present the discussion of the paper just read followed. The several points of the paper were commended. There seemed to be a concurrence of opinion that what is most needed is, as the writer put it, upbuilding of principle and

not the blind following of rule. It contains too much unnecessary material and separates too far the principle and its application. It presents complicated work early in the study of algebra, and then must needs present complicated abstract examples to give applications of these processes. This should be changed and algebra should be made to shed more light upon the solutions commonly used. Those taking part in the discussions were Messrs. Crane, Chandler, McArdle, Schmidt, Simonten and Travis.

The next paper was read by Prof. D. E. Willard of the Agricultural College, who spoke on Practical Physiography.

Professor Willard's paper was followed by one on Some Simple Experiments in Physiography by Superintendent McLain of Towner.

The two papers upon physiography were discussed. Mr. French of Buffalo asked Professor Willard if he would eliminate from the course all phenomena not within the child's neighborhood. If so, mountains, volcanoes, gorges, geysers and a long list of others must go. Professor Willard: "We have many of these phenomena right here, but have not discovered them. I mean, begin at home. Use what there you find and not until you have done so should you go to the things beyond the child's experience."

Mr. Pope agreed with Mr. Willard in a large measure. He stated that he visits local fields and studies the various land forms such as capes, peninsulas, gorges, islands, sand bars, etc., from the real thing. At the same time a general knowledge of the phenomena such as oceans, volcanoes, etc., is absolutely necessary and cannot be neglected.

Professor Bolley expressed the opinion that the trouble is that we can not secure the proper text book. We must have a general text book in botany, zoology, physiography, etc. The teacher must use his judgment in eliminating.

Superintendent Sasvain expressed the belief that since the high school pupils in North Dakota came from so many states, Mr. Willard's contention does not deserve much credit. Moreover, the pupils have interests in many localities far from North Dakota. Their friends are writing of conditions elsewhere, and they themselves are not anchored permanently. Furthermore, what is found in the western part of North Dakota is as remote from the experience of the pupil in the eastern part of the state as is almost any topic discussed in any text.

Next Superintendent Sherarts discussed The Amount and Kind of Laboratory Work in High School Botany.

In answer to a question by Professor Bolley, Superintendent Sherarts stated that he would recommend a one hour period throughout the year for botany with no extra laboratory periods.

A discussion of whether there should be one year or two of biological science required; and if one, whether this should be a year of biology, or a year of either zoology or botany, or one half year each zoology and botany, followed. There seemed to be much difference of opinion. Professor Bolley stated that a student needed something of both zoology and botany, and that in his opinion, the course in biology gave neither, and was not so good as a year of study in one of the two without any study of the other.

Superintendent Crane agreed with Professor Bolley. He considers it a better plan generally to give botany than zoology, because it is easier to find a good teacher of botany than of zoology. He believed that when it is possible a pupil should have an opportunity to select either subject, and his plan is to offer, say zoology in 1908, botany in 1909, zoology in 1910, and so on alternating the two by years so that by planning his work ahead the pupil can elect either he may desire, or both.

Superintendent Rockwood has inaugurated the same plan as has Superintendent Crane, and he finds that it works admirably.

Professor Schmidt expressed his dissatisfaction with the positions taken. He believes in both subjects as being very desirable, believes that botany is especially needed, and is glad to see the zoology being enforced. It seems, however, that because of the numerous demands made upon the schools, it is impractical to give two years to the study of zoology and botany. Hence, Professor Schmidt asks the question, what shall it be, a year of one or a half year of each?

Professor Bolley advocates the half year of each because the pupil can secure a knowledge of the basal principles in both and is well equipped for the freshman year science in college. Indeed to spend a year on each seems to be to lose a year since, when in college one must begin at the beginning. There were several other short discussions, but the reporter failed to get them.

It being now noon, the meeting was dismissed, but its members were urged to keep together until after the close of the afternoon session. A few minutes were given to allow those wishing to pay their annual dues to the N. D. E. A. to the secretary, C. R. Travis, since the executive committee of said N. D. E. A. is endeavoring to secure a record breaking attendance. The request was responded to by a large majority of those present.

The exhibit of apparatus now received attention.

An invitation was sent to the various scientific apparatus companies and school supply companies to send apparatus and appliances suited to use in our laboratories in secondary schools. The C. H. Stelling Co. of Chicago sent a large exhibit and a representative to explain the different features. Special exhibits of appliances and specimens were arranged in a number of the different laboratories of the Agricultural College. In the biological laboratories the sets of apparatus necessary for elementary class work. There was also a showing of proper simple aquaria for the growth of algae and minute organisms. There was also a display of preserved specimens suitable for school work of illustration or dissection—normal animal and plant structures, also examples of properly prepared specimens of seeds, plant diseases, etc. In the agricultural building were found the various appliances and specimens suited to aid the teacher in the work of teaching rural soil physics. Extensive display of appliances furnished by the chemical and physical laboratories; the mechanical laboratories, and in the department of domestic science.

Having had their fill of paper, science and apparatus, the association together with those attending the session of librarians were conducted to the

domestic science rooms and invited to partake of a most appetizing luncheon served by the Agricultural College. The college proved itself as capable and efficient in this line of product as it is in its others, and all participating agreed that the A. C. was an excellent host.

At 1:45 p. m. the meeting was again called to order and Superintendent Aaron Heyward read his paper upon Agriculture in North Dakota High Schools: What and How?

In discussing this paper, Professor Sheppard said in part: "The paper, it seems to me, puts the question in very strong form. There were one or two features mentioned that I would discuss briefly. The speaker suggests that introduction of agriculture in the high schools of the state is well worth what it would cost. I agree with him exactly, but I think that those who are interested will have to impress those in power relative to the funds, that it is rather an expensive line of teaching. The apparatus is not inexpensive, and it take a man, particularly at this time, with pretty wide experience, and thoroughly drilled for the high school agriculture on account of the complete dirth of text books. There is quite an abundance of elementary agriculture, but for the secondary work there is almost nothing fit to use. Let the man who introduces it try to adapt texts. They do not fit the needs. Of course, men who write the books must cover everything in order to make sales enough to warrant publishing. The expenses of the book are large. And so it is that if you get a book on, say soils, you will find that one-third will be commercial fertilizer. Such matter is wanted in New England, but not here where we waste the natural fertilizers allowing them to run off the land down the streams. What we most need is a text that is adaptable. They will come after there is a demand for them."

Superintendent Crane raised the question of how to deal with school gardens. The garden is scarcely planted by the close of school. It must be cared for during vacation. How can it best be utilized for the purpose of teaching elementary agriculture?

Professor Sheppard suggested that the school garden and other field work had but little place in high school work because it is impracticable. He considers many school gardens practically worthless. It is useless, he thinks, to have a school garden and require it to be attended to by pupils who have done such work time and time again.

Plan laboratory work with roots, grains, stems and soils. Gather seeds of common weeds. Study their method of scattering.

Professor Bolley spoke as follows:

"There is a prominent class of gardens, that is weeds that grow on the road sides, shrubs in yards, etc., which I believe many teachers overlook. The pupil should be taught to know such plants. That is the kind of a garden they will take an interest in. Boxelder trees are some of the very best plants for winter study. One does not need to sow the seeds that are on the road side, and perennial plants should have a place in the school garden." Professor Bell said: "Along the line of Superintendent Crane's remarks on school gardens I might suggest that we plant such native plants as are common in the spring time. We at the Agricultural

college are using these plants, letting them grow in the school gardens. Plant the seed just at the end of the spring term. A valuable field for study in connection with the other work is the roots. Various species of violets, buttercups, milk vetches, French weed, pepper grass, etc., can be used from year to year, and these are ready in the early spring time."

Miss Rosell lamented the fact that we seem to despise the fall flower, and suggested that we might well give it some attention in our study. She stated that while we know the spring flowers we know almost nothing of summer and fall bloomers, although it is this class of flower whose needs spring into life the next spring and people the land with weeds.

The four papers upon instruction physics were read in the following order: Laboratory Devices in Physics, Prof. L. B. McMullen, state normal school at Valley City; The Advantages and Disadvantages of the Laboratory Shop, Supt. A. G. Crane, Jamestown; Presentation of Accelerated Motion, Supt. Dan J. Ridlington, Langdon; Verification of Principles in Physics, or Their Discovery; Which? Prof. M. N. Pope, state normal, Mayville.

REPORTS OF COMMITTEES.

During the afternoon session committees appointed earlier in the day reported. The first report was made on place of meeting. The committee reported that it had received two invitations, one from the Grand Forks high school and one from the state normal school at Mayville, asking that the meeting next year be with them. It further recommended that the hearty thanks of the association be extended to these institutions for their cordial invitations, and that the invitation from Mayville normal be accepted. The report was adopted as made.

The second committee appointed to nominate officers for the ensuing year placed in nomination the following: For president, Professor Bolley, Agricultural college; for vice president, Superintendent Gray of Grafton; for secretary, Professor Travis, of state normal school at Mayville. The report was adopted and the nominees were declared elected.

Resolutions as follows were adopted: Resolved, that we, the members of the mathematics and science section of the N. D. E. A., most heartily thank the authorities of the agricultural college for their invitation to meet at this institution, for their royal welcome and for their excellent luncheon.

Resolved that we hereby express our appreciation of the labors of the present secretaries and executive committee for their devoted and successful effort in supplying us with this excellent program.

Resolved, that we express our appreciation of the generous treatment we received from the press, and that we especially thank the Forum for its liberal offer to give a full page to the proceedings of our meeting and to give the association 100 copies of the issue containing such report.

The following resolution caused considerable discussion. The association thought it unwise to pass upon this resolution until the report referred to had been carefully examined by the members. The resolution, which is as follows, was tabled: Resolved, that this meeting go on record as favoring

and urging the teaching of agriculture in our high schools. To make such work feasible we recommend the adoption of portions of the report of the committee of seven relating to reduction of number of constants and the modification of entrance requirements of the university and the agricultural college, which read as follows:

We believe that the first step toward the adjustment of cultural and vocational courses is to reduce the list of constants to those courses that are clearly necessary to every high school student regardless of sex or future vocation.

The only courses which, in our judgment, meet this test, are three years of work in English and the half courses in American history and civics. We recommend that all the other courses offered shall be elective.

To make this flexibility of the high school curriculum possible, we recommend that our higher educational institutions accept with full credit any work credited by the state high schools and that the university offer opportunity for the student to continue his work in the same lines as those pursued in the high school.

To see that the organization of this association of science and mathematics teachers was timely and that its work is certain to be constructive, one needs but to attend its meetings. The teachers are an enthusiastic body who are anxious to improve the teaching of these subjects and are willing to put forth much effort that such improvements may be made. Many school boards, seeing the earnest activity of this association and the certain returns to their schools, have deemed it a matter of business to pay the expenses incurred by their teachers who attended this meeting. They are thus making possible much valuable meetings in the future.

The next annual meeting of this section will be held at the state normal school in Mayville about one year hence. Let every one who is interested in the teaching of science and mathematics assist in making this next meeting far better even than the one just enjoyed.

CLYDE R. TRAVIS,
Secretary.

A lively discussion of the papers on physics followed.

Professor McMullen took issue with Mr. Ridlington stating that the law of falling bodies is simple and can be presented simply. Moreover, he considers this an important truth and one that touches the pupil upon every hand.

Professor Keene spoke of its being a serious mistake to omit such principles as this. As to its being practical, it is involved in considering all questions of work done by falling bodies, e. g., pile driving. If we would find the rate of a flow of water through an orifice we must use this truth.

Professor Weeks gave the views of one not teaching physics. He agreed in part with the paper. There are many principles in physics uninteresting in themselves, of much complexity, not understood by the teacher, and yet presented to the pupil. Why not eliminate these? Why teach these and yet allow women to be ignorant of the principles of physics which they should employ in their daily work?

Professor Chandler spoke against making physics a mathematical bugbear, and advocated the giving of problems in which pupils are asked to approximate results.

Some two or three seem to advocate making physics descriptive and omitting the mathematics.

Professor Travis urged that we make haste slowly in this direction, that we consider well before we advocate the elimination of too much mathematics. Physics without mathematics is nothing. What we need is a simplification of the problems given.

It being late, the discussions were closed and the association adjourned until the next annual meeting.

IMPORTANT POINTS IN THE TEACHING OF ALGEBRA.

MISS HONORA SUTTON, FARGO HIGH SCHOOL.

To discuss briefly the many phases of the teaching of elementary algebra is something of a problem, and to attempt a fuller treatment of so broad a subject is to trespass upon ground that is ably covered by several prominent writers. The purpose of this discussion, therefore, is not to present either the theoretic or the pedagogic value of the many excellent plans in common use, but to suggest certain details that, under practical trial for an extended period, have produced satisfactory results. It has not been forgotten that any carefully prepared scheme following under conditions peculiar to a school or situation may fail of result when attempted in different environment. Consequently, no plan as a whole is offered, but merely such minor suggestions as might readily find place and usefulness in the pet scheme of any worker. Moreover, the suggestions refer, in the main to the teaching of elementary algebra, and an appreciation of the difficulties and discouragements of the immature beginner has been the motive for the most of them.

In the interest of greater attention to fundamentals, live teachers find a common ground. When speaking of the ability with which Freshmen take up the work of advanced algebra, a well-known instructor in one of our most prominent universities said, "They cannot add or subtract with any degree of accuracy. They are not sure of their work in parentheses. They cannot find the lowest common denominator of fractions—usually because they cannot factor. They cannot simplify fractions and so on."

Now it is not enough that the student knows or can repeat the law of signs on the index law, for instance. He must be drilled and drilled in its use until he can apply it wherever necessary. It seems to me that the student ought to have the simpler operations so thoroughly ground into him that they will become almost involuntary. Then and then only will he have the proper foundation for the more advanced work.

The facility comes more easily to some than to others, but I think it can be acquired to a reasonable degree by all. It requires constant watchfulness on the part of the teacher and a large amount of drill. It may need more examples than the text book affords. It may take more time than is usually given to that part of the subject, but I think that you will all agree with me, that it is not so much the amount of ground covered as the way in which the work is done, that counts. Of course, in selecting the examples care must be used that they are not all alike, so that the pupil may apply the principle in any shape necessary, for instance, you have known students who could write the square of $x y$, who were in doubt about the square of $x^2 y^2$.

If the student who enters upon the advanced work has the processes of elementary algebra in such a way that he can use them readily and

surely, not only will there be an immense amount of time saved, but the work will be much more interesting to the student himself.

A new topic should be developed without the slightest reference to the text, and the practice of the new principle should be extensively illustrated by a sufficient number of examples, each of a purely elementary character. Since many pupils find need for a later consultation of the corresponding explanation in the text, it may be well to follow that particular line of reasoning. Endeavor constantly to teach through observational methods. A class needs constant training along that line. They recall with greater ease and with far more accuracy the principles in whose upbuilding they have shared. They readily apply a thing that they have helped to produce.

The average pupil of fifteen understands the simplest proofs only, and the successful teacher will not expect too much along that line. A reform at which both the English and the American movement aim, is that of no daily specific allotment of work, the same for all each day, but a general allotment on which each pupil works according to his strength. The relations between teacher and pupils are to be made of the most informal character; the pupils are to assist each other on occasion, working singly or in groups as may be best; the teacher to be the leader and friend. Instructors may fear that the brighter pupils will suffer if encouraged to spend time in co-operation with those not so bright. But experience has shown, just as every teacher learns by teaching, so even the brightest students will find themselves much the gainers for this co-operation with their fellow students.

The chief purposes of work assigned for study outside of school hours should be:

1. Drill on operations whose theory is understood.
2. To impress on the memory those few things which need to be memorized.
3. To inculcate neatness.
4. To give opportunity for quiet thinking.

The most effective homework is that which has the character of completing the class work of the previous day, not of preparing for the next. Hence a recitation period that introduces work of an unfamiliar character is made doubly effective if a portion of the time is devoted to the beginning of the outside assignment.

This practical "study hour," which is a sort of first aid to the doubtful, gives intelligent beginnings along the right lines. In the end time is gained by this practice, for the pupil is not discouraged by attempts that follow poorly comprehended principles; and with a slight knowledge of the method of application, he attacks the home assignment with more courage and willingness. Young pupils need constant teaching over the shoulder. Long distance offerings of either principle or practice will not reach them.

In the matter of requiring definitions from beginning classes, there is some opportunity for disagreement. Personally, I believe that this feature may be much overdone. It is not argued that all definitions can

be omitted, for this would be a senseless 'extreme in the opposite direction, but a mass of definitions that mean nothing to a beginner, serves only to bring confusion at the outset, and often creates in his mind the impression that great difficulties are before him.

- The safe limit would seem to be a requirement of strictly fundamental definitions only as progress requires them. *

HOW CAN HIGH SCHOOL ALGEBRA BE MADE ATTRACTIVE
TO PUPILS.

PRIN. C. M. BEITLER, HUNTER.

This is a vital question and one that demands a solution based on the light offered through the practical experience of the teacher and the best thought of experts along this line. It seems that we have been following blindly principles that time and experience have proven unpedagogical and founded on a wrong basis. This must surely be the correct conclusion or our methods would produce better results.

Why is it that we meet with so many pupils who consider this subject a bugbear and of little interest and of less practical value? It is often considered in the light of a branch that must be endured because it is offered as a constant in the course and on which a credit must be received in order to graduate, after which it is relegated to the ash heap with other subjects in which he has no interest.

The first step in the proper direction would be to correct the mistaken idea he has concerning the subject and its usefulness.

Whether this is entirely the fault of the teacher, the arrangement of the subject matter in the text book, or to inherited prejudice, or a combination of the three it is not possible to discuss at any length. However, there is no doubt but that he takes it up under a misapprehension; he believes it to be useful only for the purpose of mental discipline; to acquire skill in the manipulation of figures and signs and to prepare the way for the higher mathematics. Since he may possess no desire to go to college its study is considered as so much time wasted; he sees no practical value in it and believes a knowledge of it no tangible asset in the equipment for his life work. It seems far removed from every subject with which he has been associated in his previous school life; he has completed the arithmetic of the eighth grade and been led to believe that between the two there is a great gulf fixed. And can we blame him for this attitude?

Is it not up to us as teachers, to emphasize their relation? The next question is, how should this be done? Can this result be obtained by a rearrangement of the subject matter and simplifying the method of presentation so that he may clearly see how closely it is related to the principles which he has already mastered.

His likes and dislikes should be considered to some degree and the choice of the subjects offered should be in keeping with the age and mental ability. This is of prime importance.

Will any one deny but that we are now presenting subjects to our class in freshman algebra which is beyond the ken of their youthful minds? It should occasion no surprise that we often fail to obtain the desired

results. There are some phases of the subject that might well be left until the pupil shall attain a higher degree of mental efficiency. Among this class I make mention of radicals and quadratics as they seem to be matters of difficulty to the average freshman and I doubt not that the time spent in trying to master them might be more profitably employed at this period. I believe the high school board made a wise move when they eliminated portions of these subjects from the elementary course and inserted them in the advanced course where they belong.

Is it not possible to abandon some of the abstract and insert more of the concrete? The average boy revels in the concrete. It would be of advantage to eliminate many of the abstract problems therein contained and insert more problems dealing with every day life; he enjoys to deal with problems connected with the affairs of daily life, and finds delight in solving questions that are based on his own experiences or of those with whom he is associated. How eagerly the boy attacks a list of problems wherein he must formulate his own statements and equations and the result depends upon the care and study he has exercised in stating the conditions! And how different is his attitude when obliged to assail a long list of intricate problems simply to see how many methods he can evolve in seeing the value of "X" through a maze of computations more perplexing than a Chinese puzzle.

I believe that some phases of first year algebra are overemphasized to the sacrifice of others more important to the student; problems that involve difficulty and lengthy exercises in highest common factor and least common multiple.

There is little doubt but that the great number of intricate exercises offered in the average text book does more to disgust the pupil with this subject than any other factor, unless it be the incompetent and unskillful teacher; should these operations be delayed a while longer the chances are greatly in his favor that he will master these with less difficulty and much more profit to himself.

How much practical value are the long problems in complex fractions and in common fractions involving intricate and difficult numerators and denominators? Are they not partially to blame for this subject's unpopularity? In briefly summing up it is suggested that the subject of radicals in its entirety, and quadratics should be transferred to the domain of advanced algebra; less intricate problems in H. C. F. and L. C. M. the simplifying of common fractions; offering more concrete and fewer abstract problems and special emphasis upon the close relation between this subject and arithmetic.

Will not a few corrections of this nature serve to solve this question so that we may meet with better success in interesting our pupils and obtaining the desired results.

PRACTICAL PHYSIOGRAPHY.

PROF. D. E. WILLARD, AGRICULTURAL COLLEGE.

Seven minutes! Let me not waste time in apologies or explanations. I may simply say, I have had all the time there was and I have studied the subject several years.

Practical physiography—what does the term mean? Practical, as applied to affairs, means useful. Practical, as applied to a course of study in schools means, I take it, available, that is, able to be presented in class instruction, and so organized as to be useful when applied to affairs. The assignment of such a topic might seem to suggest, does suggest, that may be there is a kind of physiography that is not practical, that is not useful as related to the affairs of men, and not altogether available or within reach in teaching.

And let me say at the outset that it seems to me there is a physiography that is not practical—in both of these senses. If I may be permitted to economize my brief seven minutes by coming directly to the contentions to be made, let me say that there seems to me to be a lot of so-called physical geography that is not practical, that is, in fact, dangerously near nonsense. I believe that a subject is remote, far-fetched, unpractical, which is removed from the experience of the child—and children may be here read to include many of us whose hair has reached the silver stage. Do you recall a time when as pupils in school you studied about tides, and typhoons, and Japan currents, mountain ranges of fabulous height, glaciers of extent and grandeur limited only by the capacity of the imagination of the writer, whose aim may be was to produce a text-book that would sell, ocean waves and great sea monsters that nobody ever saw, winds, storms, and atmospheric phenomena too marvelous for heaven above or earth beneath and therefore suspended in mid-air, was your childish imagination filled with awe and wonder as you studied about these wonderful phenomena of nature, and did you think what a wonderful world this would be, and what marvelous things there would be to behold if only you could travel to far-off lands to that vague and indefinite somewhere where such things are said to be? Did you study about such things, I say, in your lessons in physical geography? Did you study also a lot of abstruse scientific principles, principles which belong in the proper domain of physics, chemistry, biology, geology, astronomy, meteorology, and many of them also in the more advanced courses in these sciences? Does this suggest to you anything resembling the experience you have had? If so, then you know what it is that I mean when I say there is much so-called physical geography which is unpractical, or impractical, because far removed from the experience of ordinary mortals who live on this common, every-day earth. This is the physical geography which on one hand I call nonsense, and on the other absurdly nonsensical.

Physician, heal thyself. What then is practical physiography? or practical physical geography? Well, it is practical physiography that is near where we live. It is the physiography that determines the very conditions under which you were living when you studied those far-fetched imagination-wrought lessons about things that were away off somewhere—in Asia, Australia, the islands of the sea—anywhere except right at home. You have already guessed what I am trying to say practical physiography is, for it is what these things that I have mentioned are not. It is the geography of our own out-of-doors.

Practical physiography I have said should apply to the affairs of men; it should also be applicable to the work of the class room, that is, should be available in school work. It should not be beyond the experience of the citizen learner.

I fancy some of you giving assent to what I have said, and yet may be you will go right back home and teach these same phantasmagoria and cause yourself to be regarded as a successful teacher because, forsooth, you make the subject so interesting.

But the subject should be interesting because it is vital, because it explains things that are about us, because it enables us to understand and interpret nature, because it enables us to use the natural resources that are all about us, teaches us in fact how better to raise corn, drain our land, protect ourselves from the extremes of climate, prevent disease, conserve the natural resources of the land, bring back the forest to the denuded hillside, and to see something real and reasonable in all nature, and, finally, to enjoy life better.

Now, again, practical physiography—how shall we realize it, how shall we practice it, if you please? For we must practice it or else it will not be practical physiography. To practice it we must do it, we must be it, we must live in the very subject. I have said before, we must associate it with and make it a part of our experience. It must not be fantastic theorizing about things that are on the other side of the earth, or in some remote part of our own country.

How then shall we begin? What shall we do? What shall be our first lesson? Silence—I hear no answer. Are you at a loss what we shall do? A few minutes ago I quoted you as saying in your minds, "Physician, heal thyself." And I am not going to do as some one is said to have done once when thus challenged, when he said, "Go to, now, I have not my medicine case along." May be you will say my medicine case is filled with quack remedies, but your saying so will not make them quack.

Now, for a suggestion of a first lesson, I am going to ask you where you live. I hear you all in your minds answering with justifiable pride, in North Dakota. Well, I said I would begin with what is near by, with that part of the good old earth that we live on. So, I would begin with North Dakota. True it is, if current text books are to be relied upon, that there are beautiful hills, lakes, valleys, rivers, streams and rocks, in Norway, in Italy, the Orange Free State, the Argentine, and if

I lived in one of these countries I would make the one in which I lived the basis of my study,—I mean of my teaching. But, since I happen to live in North Dakota I would not at first try to strain my mental optic nerve to see the physiographic form and fashion of the countries that I have named. Maybe someone here is saying that nobody does this. But I say, yes they do. Glance over the pages of the latest standard (?) text books used in the schools and see if this is not so. Only a short time ago I had occasion to examine a text book with reference to its use in my class. I went through the pages and with some care marked every illustration (and the book is profusely illustrated) that I could duplicate with a North Dakota photograph either already in my collection or that I could readily send my assistant out to take and direct him exactly to what part of the state to go to take it. In some whole parts of the book I could duplicate 80 to 90 per cent of them. The pictures to which I refer were labeled China, Siberia, Norway, Scotland, Italy, Alaska, and various parts of the United States.

Now, I am not going to make my medicine so extremely quack as to say to use "The Story of the Prairies" as a text, but I will say this, that I believe physiography or physical geography as taught in our schools can be made a great deal more practical, more useful, more within the experience of the pupil, by using as a basis for the study of land form and the more important principles some suitable text of this character that deals directly, simply and plainly with the landscape features of the region in which we live, and with the physiographic processes by which these forms have been wrought. Instead of this, generally in our schools the reverse of this is the plan. All countries and all lands, earth, sea and sky are studied, and the principles are not brought down to our own door-yards, to the very land in which of all lands we are most interested. Somebody will rise up and say that we should study the general before we do the local. To which I answer that Davis' text book of physical geography—which, by the way, is one of the best—is almost as local in its descriptions as is "The Story of the Prairies." (Pardon the appearance of egotism, but I do not know how better to make my meaning clear). The difference being principally that Davis' text selects a lot of local examples from all parts of the country, or the world, and by this very fact makes the most of the subject matter and the illustrations of the book local for the few, but remote from the experience of the pupils generally, and so confirms my statement that much of our teaching is about things that are away off somewhere, and almost surely leads the pupil to think that this would indeed be an interesting world if we could only travel and see the wonderful things that are so vividly described. I repeat what I have long contended, and which I have set forth in the preface to the humble volume to which I have been compelled to refer because there is no other book of just such character of which I know, that there are just as good examples of rivers and lakes, hills and valleys, deltas and floodplains, denuded slopes and fertile bottoms, lands that have been glaciated and lands that have not, plateaus, plains, peaks and promontories, in our own state, and therefore within

comparatively easy physical reach and mental association and grasp, as there are in the remotest lands beyond the seas, or in the states that exist in the mind of the average pupil only in far-drawn imagination. To make physiography practical, therefore, I say begin at home. Study our own physiographic types, which have been produced by the same great processes of nature that produced those of Asia, of Australia, and the islands of the sea. We have little need in our childhood or youth, in my humble opinion, to study the tides—we are far from the sea. Ninety-nine out of one hundred pupils have never seen the sea, and a very large percentage of them probably never will. And little would they know of the meaning of the great physical forces that produce the tides if they did see them. And yet chapters on the tides are in every text book—except “The Story of the Prairies,”—like the Pharisee of old, I thank the Lord they are not in that!

The ninety and nine who were born on the far inland, and who will earn their substance from the great landscape on which they were born, the good old earth with its varied soils caused by the varied physiographic processes that constitute the basic principles of this most practical science, will be better prepared to pursue the avocation of life in the land where they were born and where most of them will live, if they have been taught to reach out from the experience of their environment to a larger experience of knowledge of the processes of nature which have made their environment what it is, and which control and determine the conditions under which they live.

PRACTICAL PHYSIOGRAPHY.

SUPT. J. F. M'LEAN, TOWNER.

Appeal to the senses and especially to the eye has ever been the guiding principle of the educator. Many have attempted to describe what education means and it is agreed that it is a drawing out or exercise of all our powers, both physical and mental.

Rueben Post Halleck, in that epoch making book, *The Education of the Central Nervous System*, pictures the advantages of a child, reared in ideal surroundings, where all its powers, both physical and mental, have full sway, and where all the beautiful sights and sounds of nature are allowed to flood in upon its senses; over a child, reared in a back alleyway or in a crowded tenement house in a city.

The successful teacher, and we may add, the humane teacher, is the one who appeals as far as possible to the senses of the child. Other things being equal, the teacher who uses the most chalk gets the best results, for he uses that much more concretion and does that much more visualizing. A mental picture must be formed and such a picture will be more vivid and lasting if the pupil is asked to construct something.

In the subject of physiography it would be well if we could take the class over the country to be studied. Since this is for the most part impossible the next best course is to have the child construct a model of the landscape to be studied.

Since this is largely impossible the next best course is to reproduce the landscape by a model made of sand or clay. In our work we use sand since it is less expensive and can be worked over and over again. Tack a frame about three inches wide around a table, the larger the table the better. This surface may be filled with sand. In this way a model may be moulded and left before the class for several days. The moulding should be done, as far as possible, by the class. In fact the model should be in course of construction for several days. While the impression is fresh in the minds of the pupils each one should be required to construct a little relief map for himself. This may be done from a mixture of flour and salt. This mixture will become white and hard and may be kept by the pupil as a permanent record of his work.

Let us suppose we are working with the map of North Dakota. Our sand map should indicate the highest point in the state, viz., Sentinel Butte, southwest of Medora, the bad lands, Missouri Slope, Missouri river gap, Mouse river depression, table land of the Turtle Mountains, the gap east and west of the Turtle Mountains, depression at Devils Lake, James River valley, Pembina mountains, Red River valley, and finally the lowest point in the state, which is at Pembina. By using a meter stick or other straight edge, the map should indicate the slopes and depressions and give

the pupil a perfect concept of the surface of the state. The western half of the map of the United States, or even the entire map, may be indicated in the same way.

A coast line may be moulded in sand in a large shallow galvanized pan. If the elevations are made quite high and water poured into the pan to the depth of an inch or more wave action, erosion, sedimentation, etc., may be illustrated.

A very valuable adjunct to a laboratory of elementary science is an aquarium. Take a plank of hard pine ten or more inches in width, plow a groove along each edge three-eighths of an inch deep and an inch from the edge. Cut off pieces for the ends and mortice them in position so that the groove in the bottom will correspond with the grooves in the ends. Fill the grooves with white lead and insert a glass in each side and place pieces across the top. If the work has been properly done it will never leak.

The siphon, diving bell, capillarity, compressionability of the air may be illustrated.

An iron bar about four feet long may be placed in an inclined position. Place at each end of it a finger pointer attached to a card. Let the pointer be balanced upon a pivot with one arm about ten inches long and the short arm only about an inch long. Under the bar place several lamps. The slightest expansion will be indicated by the long finger of the pointer upon the card.

To illustrate a volcanic eruption mould a little miniature mountain with a crater. In this hollow place a mixture of granulated sugar and chlorate of potash in the ratio of one to two. Touch a match to the mixture and a violent chemical action will take place. If sulphuric acid is used there will be a still more violent explosion with overflow of lava.

A bent tube placed into an alcohol flame may be used to illustrate a geyser.

Soft coal placed in an enclosed iron tube and heated by an alcohol flame may be made to give off gas. This gas may be collected over water and burned.

Take a piece of lap siding as long as the width of a window. On each end fasten a bridge one and a quarter inches wide at one end and about three-eighths inches at the other. Across the bridges stretch about eight strands of silk thread after it has been twisted and waxed. Let the first string contain two or three twisted threads, the next two more, the next two more, etc. After the strings are tightened place this eolian harp, as we are to call it, under the window. If the wind is blowing there will be a series of musical notes which will be continued in endless variety.

Take a round, heavy card about a foot in diameter. In the center draw a circle less than an inch in diameter. Using the circumference of this small circle as a series of centers draw a number of large circles. If this card is revolved slowly it will illustrate air waves.

To show that the vertical rays of the sun are much stronger than inclined rays use a prism and throw the rays at right angles upon a card and also at an incline. Notice the difference in the degree of heat.

In our class room we are keeping a record of the slant of the sun's rays at different times in the day and as the season progresses.

I close as I began. Let us appeal to the eye as much as we can. If expensive apparatus cannot be secured a little ingenuity will enable us to construct home made apparatus.

A trip to a neighboring river or coulee will furnish ample scope for observation of gulches, bayous, ox-bow curves, etc.

Maps may be secured from the different weather bureaus indicating the different forecasts, barometric pressures, etc.

THE AMOUNT AND KIND OF LABORATORY WORK.

SUPT. F. M. SHERARTS, LARIMORE.

My belief is that much of our high school work in botany as well as in many other subjects taught in the high school has been planned more in reference to later advanced work than to the real needs of the pupils themselves. This has been due, in my opinion, not so much to the efforts of the high school men as to the demands of the higher institutions of learning. There has been a tendency during the past few years to require more and more technical and advanced work from our high schools. Whether this has been due to a distaste for this elementary science work on the part of the college specialist or to an erroneous idea of the real needs of our elementary students, I do not know.

Statistics show that a majority of the people of any community continue in the occupation in which they were raised and in the community in which they were raised. With the disappearance of free public lands this tendency will increase. It follows therefore that a careful study of the predominating occupations should be made and the activities of the school life made to correlate as much as possible with such activities.

The time has passed when a subject can be justified upon disciplinary value alone. There are so many subjects that possess both utilitarian and disciplinary value pressing for our attention that the purely disciplinary subjects are being rightly relegated to the back ground. The subject of botany, rightly taught, will have a direct bearing upon the life's activities of the student and will be retained. The subject matter presented in this subject and the method of presentation, however, must be in harmony with needs of the students or the bar of public opinion will declare against it.

Laboratory should clarify the statements of the text. A laboratory course best suited to the needs of the pupils then implies the use of a text or material for study that is most adaptable to the needs of the community in which the school is located. The subject matter of a school botany course in a city school where the work is largely preparatory to advanced work in higher institutions should be of a different character than that in schools whose students pass from the high school to their life's work.

For schools with rural surroundings, I believe that our course in botany should be modified so as to include more farm botany and less of the technical and analytic work. The laboratory work here should be concerned with the plants that concern the economic welfare of the farmer and should be confined principally to the facts about such plants as will be of most value to the student in rightly understanding plant growth as he will meet it. In the fall field excursions for the collection of material

should constitute an important part of the laboratory work. The emphasis in the study of germination should be placed more upon the conditions of successful germination than upon the vital processes of germination themselves, leaving the latter to the more advanced work in college. The school garden should receive more emphasis than microscopic drawings or the preparation of cross sections.

Much attention should be given to ecology especially emphasizing the relations of the plants affecting our economic welfare. Physiology should be incidental, just enough being taught to make the work in ecology intelligent. It seems an anomaly to me for pupils to spend the greater part of the year in the laboratory, peering into a microscope, when the great plant world is beckoning them to come and get acquainted.

Botany taught as suggested has several advantages:

1st. The study of the relations of plants gives the proper conception of the place of plants in nature and is a fitting preparation for later advanced work.

2d. The knowledge obtained will be confirmed and strengthened by later experience, whereas a knowledge of plant structure would be soon forgotten.

3d. The work done would have a direct bearing upon the life's activities of the pupil and would prove its value in helping to solve many of the problems of agriculture.

4th. It demands little use of the compound microscope, an instrument that is ill adapted to first contacts with nature.

5th. It would lessen the cost of the equipment needed for botany work and place the work in the reach of all high schools instead of limiting it to the city schools as now.

The exact material to use in the laboratory work I feel unqualified to suggest, but hope that a course can be prepared for our schools along the line suggested, with suggested material for study.

Laboratory should also train the pupil in observation and form in him correct habits of thought. The work then must not be haphazard, but each step a definite part of complete plan. It is far more important that a student acquire the power of making intelligent observations, and the power of drawing accurate conclusion from his observations than it is for him to be able to acquire dexterity in the use of botanical equipment.

During the pleasant weather in the fall and spring field excursions should be made an important feature in the work. These excursions should have definite objects in view, definite plant relations for observation. Material should be collected on these excursions for use when the weather is unpleasant and for comparison with statements in the text.

I believe that sufficient attention should be paid to the classification of plants and the preparation of a herbarium as will give the student the power of botanizing for himself, a power that will be a source of great pleasure to him all his life.

The time to be spent in laboratory work including field work should not be less than three hours a week. In schools where the classes are small

daily periods of one hour each, devoting a part of each period to quizzes and the balance to laboratory work is preferable to separate periods for laboratory work.

To summarize: I would omit a large part of physiological botany, and emphasize the ecology of the plants that affect the economic welfare of the state. I would supplement this work with a school garden, which would continue the work of the school year over into the summer vacation. I would make the actual study of the plants themselves the main object of the course, using botany texts as a reference. Each period should be a laboratory period with just enough recitation to insure the drawing of proper conclusions from the observations and just enough of assigned work from the reference texts to direct the observations.

Such a course will be in the reach of every high school in the state. It will meet nearly all the demands for a course in agriculture. It will direct the attention of the students to the fundamental facts of the plant world that will affect their future welfare. It will decrease the cost of equipment. It will give the student a stock of facts that he will be able to add to from his later experience. It will create in him a power of observation that will be of service to him all his life. It will give him a broad view of nature that will be a valuable preparation for advanced work in botany, if he continues his school course. It will permit the combination of botany and agriculture into one course. It will be pedagogical, interesting, practical and within the reach of all.

AGRICULTURE IN THE HIGH SCHOOLS OF NORTH DAKOTA.
WHAT AND HOW?

SUPT. AARON HEYWARD, CAVALIER.

If a nation is to be prosperous, its educational system must fit men to establish independent positions for themselves, and prepare them to take care of themselves and their own.

President Roosevelt has asked five experts on country life to make an investigation of the conditions on American farms and will incorporate their report in his next message to congress. He says, "No nation has ever achieved permanent greatness unless this greatness was based on the material and moral well-being of the great farmer class. This investigation and report will bring to the attention of the people of this country more forcibly than ever before the great necessity of readjusting our educational forces to meet the needs of the masses of the people. It will show that the great mass of ninety-five per cent of the children of this country are not receiving their just share of public attention and help in fitting them for their place in society; that this ninety-five per cent is not being helped to good citizenship, and to productive, contented and happy lives, as they should be.

Many people believe that the college is fastening upon our high schools an antiquated course of study which is unreasonable and unnecessary. They realize that the high schools influence the elementary course, making it overcrowded, forced and unsuited to the natural mental development of children. Many educational leaders are insisting that education should develop out of daily experience, that the elementary and secondary schools should be a natural expression of the community of which they are a part. These educators are insisting that in our agricultural country, agriculture should be as much a part of the schools as oxygen is a part of the air. And there is no reason why agriculture should not constitute a prominent part of the work in the graded and high schools in communities which are not strictly agricultural in their character. The study of agriculture gives the same sort of mental development as is given by the study of botany, physics, geology or any other science. A professor of chemistry has said that no one had a well rounded education who had not had four years of college chemistry. The college professor of any other science might have made the same plea for his special subject. Possibly we can all agree with the N. E. A. committee on Industrial Education in their report in which they say, "The mastery of such parts of this rapidly developing body of knowledge as is within the capabilities of elementary and secondary pupils furnishes a mental training unsurpassed in extent and quality by the mastery of any other body of knowledge now regarded as essential in our common school courses and requiring an equal

amount of time; and that for utility value it is not equalled by any other body of knowledge at present acquired through the expenditure of the same amount of time and effort.

The dean of the agricultural experiment station of St. Paul says agriculture should be taught in rural schools, in the grades, in high schools and in colleges of science, literature and the other arts. Agriculture should become a part of a liberal education. It is a foundation industry upon which all others depend. Instruction in this subject is essential both for utility and for culture.

The committee on industrial education and others recommend the establishment of secondary schools distinctly industrial in their character as an absolute necessity for the proper development of our school system. This committee maintains also that the needed agricultural and other industrial phases of education can be introduced in the existing schools without the elimination of any valuable feature in the present system, and without destroying the opportunity of such pupils as wish to enter other schools of secondary or higher grades.

In several states objections have been raised to the plan of smaller agricultural high school at different points in the state, because of the belief that existing schools should not be paralleled by technical schools. It should ever be borne in mind that agricultural education should not be separated from all other educational effort; that it is but a phase of general education. The final solution of the problem of industrial education is not the establishment of special detached schools, but the re-directing of existing schools in such a way that they shall teach the members of the communities how to live. Secondary school work should be such that through it boys and girls may find what life work they may best take up.

It is not that farmer boys and girls should be kept on the farm regardless of their capacities, but that all classes of young people may come to a proper appreciation of country life. When agriculture assumes its proper place in the education of all classes, the city boy will see with unprejudiced eyes the advantages of farm life, and may readily become a part of the farmer class.

Many pupils of the motor type of mind are now being lifted to higher planes of life than before by the teaching of the manual training in high schools, and the school garden has saved many more from dropping out of school with but a small part of what the school should give them.

A large part of the children of North Dakota cities must eventually gain their living through the processes of farming. These boys and girls should be taught according to their needs, for the aim of education is to fit for life. We justify manual training in our city high schools. With greater reason we may justify the teaching of scientific agriculture, for it would tend to check the congestion of cities while manual training would have an opposite tendency.

All who have lived in North Dakota, if but for a short time, will recognize the necessity of a more intensive and economical system of farming in this state. The present system is on the whole very wasteful and unprofit-

able. Mr. James J. Hill declared in a recent address that by the middle of the century we must develop a food supply for 110,000,000 additional people. Free agricultural lands are nearly exhausted. The average yield of wheat in the United States is fourteen bushels per acre. It is the problem of scientific agriculture to double this yield and correspondingly increase the yield in other farm products.

The teaching of agriculture in our high schools should be encouraged for the purpose of preparing teachers for rural and graded schools. While it is a fact that high school training alone is not sufficient to qualify rural teachers, yet many of our best rural teachers have had no other training.

The entire cost of teaching agriculture in high schools would be justified by the benefit to those who would otherwise drop out of school.

I understand that a committee of the faculty of the North Dakota Agricultural College is preparing a course of agriculture for our public high schools. Prof. J. H. Shepperd concludes that this course should include agricultural physics, agronomy, horticulture and animal husbandry as the subdivisions, and that a semester should be devoted to each subdivision.

Prof. Randlett states that "It is impractical to give less than three years of agriculture, including the botany and zoology preparatory to it, in a high school course. In less time the subjects cannot be covered in a sufficiently comprehensive manner to be of much value to the student, or to give him an adequate idea of the scope of the field."

The study of agriculture should have a broad foundation in biology, physics, chemistry and other studies. The teaching of physics, chemistry and other sciences should be separate from the teaching of agriculture, if possible. If the high school has no separate or adequate course in biology, then the student can be given a good drill in botany and zoology, with particular reference to its agricultural relation; and this might be called "agriculture." The agricultural work in the high school should have a distinctly scientific value. It should be such as would count towards college entrance requirements.

All agricultural subjects must be taught by the laboratory method, which is to see accurately the real object of the real phenomenon, and to reason correctly from what is seen.

To recapitulate:

1. We are all dependent on the farmer.
2. Education should grow out of daily experience.
3. The subject of agriculture should have a high disciplinary value.
4. Agriculture should be offered in our high schools, and special agricultural high schools should not be necessary in North Dakota.
5. Better and more intensive farming are necessary to meet the needs of American life.
6. High schools should prepare teachers of agriculture for rural schools.
7. The study of agriculture should be supported by a limited knowledge of biology, chemistry and the work of the school garden.
8. Agriculture should have a distinctively scientific value.
9. Agriculture should be taught by experimental and observational methods.

TWO DESIGNS FOR HOMEMADE APPARATUS.

LYNN B. M'MULLEN, STATE NORMAL SCHOOL, VALLEY CITY.

I. A Jolly Balance.

One of the problems confronting the average high school teacher of physics is the lack of balances when handling large classes in the following exercises: Density determination, surface tension, Archimedes' principle, specific gravity work of all kinds, distribution of magnetism, copper voltameter. All of these exercises can be performed with surprisingly good results by the use of the Jolly balance here described. The advantages of this balance over the common, large beam balance (costing from 12 to 25 times as much) are: (1) No weights are used except in calibrating the spring; (2) a half inch bicycle ball, a small piece of marble or aluminum, a piece of candle, small beakers of water, alcohol and gasoline, a nail for testing magnetism and a frame for surface tension constitute the extras necessary for the above exercises; (3) it is found that students find keen enjoyment in the manipulation of the balance.

It is suggested that teachers reading this article hand it—with the necessary supplies—to their students or to the manual training department, that it may be used as a guide in the making of several of these balance. Six of them are now being made in the manual training department of our school.

CONSTRUCTION.

The base may be made of any hard wood $1\frac{1}{2} \times 12 \times 12$ inches, with levelling screws at each front corner and a tack with a round head in the center of the back. Or the base may be a box $3 \times 9 \times 9$ inches with the bottom extending $1\frac{1}{2}$ inches all around. (Fig. 1.) The upright in the center of the base is $\frac{7}{8}$ of an inch square and 4 feet long with a $1\frac{1}{2}$ inch screw pulley screwed into it, 1 inch from the top, until the front groove of the pulley is about $2\frac{1}{2}$ inches from the upright. Two inches above the base, as close to the front of the upright as possible, is placed an adjusting screw. This screw as well as the levelling screws, can run in a nut imbedded in the wood or they may be made to cut threads in the wood itself. In either case they should be so loose that they can be turned by the fingers. A $\frac{3}{8} \times 6$ inch carriage bolt (threaded full length by a blacksmith) has been found to be satisfactory for the adjusting screw. In the end of this screw must be filed a deep notch.

Six inches above the base is tacked the platform made from a piece of tin as shown in Fig. 2. On this platform is hung an indicator made of tin (or aluminum) as shown in Fig. 3.

The spring is made by winding closely No. 26 or No. 28 spring brass wire on a three-eighth inch gas pipe until a coil about three inches

long is obtained. While held on the pipe the wire is made to keep its shape by holding for two minutes in the hot gases above an ordinary gas flame, then for two minutes in the flame, and then for two minutes above the flame. If, when it is released, it is too "springy," give the next one a longer time in the flame; if too soft give it less time. If properly annealed such a spring will bear a load of 10 grams with permanent strain. Now see how far 1 gram will stretch the spring. If more than 2 inches, cut off the spring until the stretch is about this amount, and fashion hooks on the ends of the spring. (A steel spring wound in the same way, heated in a forge until blue and tempered in oil is better.)

Next cut an oak block 2x2x3 inches and put a screw eye in the center of each end.

File a piece of large copper wire, 2 inches long, thin at each end and make a small hole in the thin part. Around the center scratch a line. This is best done in a lathe.

Make pans as shown in Fig. 1. Aluminum is best, but any thin metal will do.

Tack a meter stick to the left side of the upright with the lower end just above the adjusting screw. In case a meter stick is not available plane the numbers from a yard stick (such as merchants give away for advertising purposes), leaving the marks one-eighth inch apart. These marks should now be renumbered 5, 10, 15, etc.

Cut off a piece of braided fish line $2\frac{1}{2}$ feet long, fasten one end to the notch in the adjusting screw (the screw being placed so that the notch extends three-eighths inch through the upright, fasten the other end to the copper wire and turn the screw so that the fish line winds up on the screw. Arrange guide nails or screw eyes so that a fine wire can be fastened to the other end of the copper wire, passed up the measuring stick directly over the marks, carried through the pulley end and fastened below the pulley to a screw eye in the block. To keep this block from rotating it is best to tack to each side a strip of tin which runs back past the upright.

To the other screw eye in the block hang the spring and lower it by means of the adjusting screw until the other end of the spring may safely be hooked to the indicator. On the indicator hang the pans. Under the pans place a block which is high enough to support a beaker so that the lower pan may be immersed in its contents.

Give the whole a coat of dead black Japalac.

HOW TO USE THE BALANCE.

Turn the adjusting screw and the levelling screws until the point of the indicator just clears the platform at a point near the front, in the center. In case the indicator does not hang correctly adjust the screw eye in the block. Read the position of the scratch on the copper wire with reference to the measuring stick, estimating to tenths of a division. Place a 1 gram weight in one of the pans and adjust and read as before. The difference in the readings is the stretch per gram and its reciprocal is

the fraction of a gram causing a stretch of one division. This is called the "modulus" of the spring and should be tested for 2, 3, 4 and 5 grams. If not abused the modulus will remain the same from year to year, but it should be verified occasionally.

To weigh an object—for example, a bicycle ball—two readings are obtained as before and the difference is multiplied by the modulus.

II. THE CIGAR BOX SONOMETER.

Two exercises in "sound" are usually omitted in the high school course in physics because the apparatus (made for colleges) fails to work in the hands of high school students. One of these exercises is a study of the laws of strings, so necessary for the understanding of the stringed musical instruments, and the other is the determination of the speed of sound in solids.

Following is a description of a sonometer which enables high school students to perform these exercises.*

CONSTRUCTION.

Tack a V shaped bridge one-quarter of an inch thick across the top of the back of a large cigar box and another of double the height across the bottom. Also make four small movable bridges of this height. These must be very light so that the pressure of the strings (Fig. 4) will hold them in position. Drive four brads into the top of the box, as shown, and to each fasten an E mandolin string. Fasten also to one of the center brads a B guitar string (steel) and to the other a string of No. 26 spring brass wire. Put on a bail of wire or string so that the box may be hung upon the wall.

For the weights make six bags of denim or canvas about six inches square and fill with gravel, adjusting each until it weighs 1 kilogram. Make a smaller bag and adjust to 5 kilogram. Make two others slightly longer than the first ones, weight to 1 kilogram and sew up, leaving the upper part empty so that small weights may be added as required. Put a large hook on the top of each and an eye on the bottom.

HOW TO USE THE SONOMETER.

To illustrate the law of length put a weight of 1 kilogram on each of the mandolin strings and by means of the movable bridges adjust the length of each string until the four produce the major chord, whose vibration ratios are 4, 5, 6 and 8. The lengths of the strings will be 8, 6, 5 and 4. For the law of tensions remove the movable bridges when the strings will vibrate between the fixed bridges and all will have the same length. Increase the weights on three strings until the major chord is again produced. An actual experiment with one of these sonometers shows the weights to be 1, 1.624, 2.294 and 4 kilograms, whose square roots are to each other as 4, 5, 6 and 8, within a very small per cent. To verify the law of diameters use the mandolin string (diameter .0225 c. m.) and the guitar string (diameter .0306), with equal weights. If they have equal

*See School Science and Mathematics, April, 1906, for a more complete description.

lengths they sound, very nearly, sol and do, respectively, tones whose vibration ratios are 3 and 2. These numbers will be observed to be in inverse proportion with the diameters.

To show the law of density tune the brass string and the guitar string to unison by using the movable bridges. Then calculate what the vibration number of the brass string would be if it had the dimensions of the steel string (using the laws already verified). The vibration frequencies will be found to vary inversely with the square root of the densities.

To measure the speed of sound in iron, clamp a piece of gas pipe tightly at its center (the pipe should be at least a meter long), and stroke it with a piece of resined leather until it emits a high shrill tone. A little practice enables one to tune a mandolin string, weighted with four kilograms, in unison with the rod. The string is then lengthened until it vibrates in unison with a 512 fork. From these data the vibration number of the string and hence the rod, may be calculated, using the law of length of strings. Knowing that the length of the rod is half the wave length of that sound in iron, and knowing the number of vibrations made by the fork in one second, simple multiplication gives the required result.

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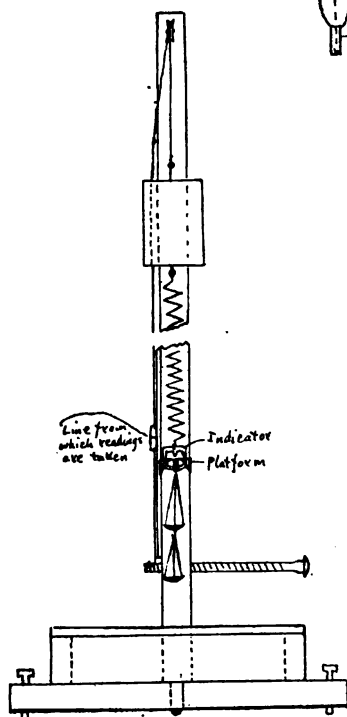
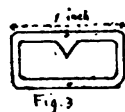
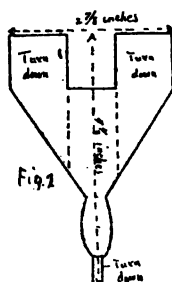


Fig. 1.

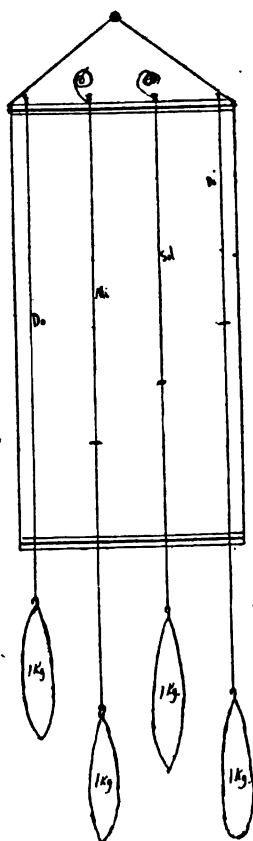


Fig. 4

THE LABORATORY SHOP.

SUPT. A. G. CRANE, JAMESTOWN.

The laboratory shop is an adjunct to the high school laboratory and not a manual training department. A clear idea of its function and scope is necessary in order to give it intelligent consideration. Its function is to repair, adjust and manufacture science apparatus. It does not presuppose regular class work or a regular course of instruction or regular students. The workmen may be either students, teachers or janitor or may be all of these. Its purpose is primarily repair and manufacture of apparatus. Its second purpose is to train the students in the use of tools and to give the teacher a chance to hold the attention and interest of the mechanical pupil who is often slow at books, but is interested in things. It will be of great value in this discussion if this outline of the function of the laboratory shop is kept clearly in mind. In this paper I wish to take up the matter of equipment, methods, practicable specific projects and general results.

The equipment does not need to be either extensive or expensive in order to get surprisingly large results. The teacher is the main part of it. A man qualified to teach physics should be qualified to manage and direct a shop. Without a male instructor in science who is mechanically inclined I should never advocate the purchase of much shop equipment, but with any science teacher, man or woman, I should advise the purchase of a small equipment. The ability of probable science teachers should gauge the amount and character of the equipment.

The next factor needed is a place, a room or part of a room, where tools and unfinished projects will be undisturbed. The larger and lighter this room the better, but a bench in the laboratory with a cabinet for tools and projects will do much. If a dry, light basement room is available its isolation will be an advantage as some use of it can be made during school sessions without causing disturbance.

THE LABORATORY SHOP.

For the tool equipment, keep in mind the purpose of the shop. A regular manual training outfit is only imperfectly adapted to the needs of a laboratory shop. As the work is of a miscellaneous character so the equipment will be varied. It must be such as can be used for any of the materials in common use in the laboratory, wood, brass, iron, etc. A bench with two vises and stops and a small set of woodworker's tools is necessary. Few duplicates are required. A long, roomy home made bench will often be preferable to the regular manual training bench. An iron vise, hack saw, set of files, drills, anvils, taps and dies, emery grinder, etc., will be needed for the metal work. A medium priced combination

wood and iron lathe will be almost essential for any elaborate work. A source of power other than man-power is hardly advisable unless a very capable teacher is available. A small paint and varnish collection consisting of varnish, paint, fillers, stains, brushes and dry colors is necessary.

Materials are very easy to get if one uses foresight and secures a good assortment of wood, sheet metal, metal rods, tacks, nails, screws, wire and special laboratory materials. Plan the work well ahead by listing apparatus to be made during the year. For material do not despise the junk shop. If you have storage room make a rack to hold empty packing boxes. Ammunition cases are very fine. In these boxes place the junk and collections of material; wire in one, bolts in another, sheet metal in another; wooden scraps in another, etc. The boys will collect useful junk for you very readily. Make a lumber rack to hold assorted sizes and grades of lumber and here the box lumber will come handy.

The cost of such an outfit can vary from \$5 to \$500, but \$50 will make a good start with the simplest wood working tools; \$100 will give an outfit of the simplest tools for both wood and iron, and \$150 will give tools for wood and iron as well as a small lathe.

In methods of work, each shop must be a law unto itself. Some tested shop rules may be suggestive:

Rule I.—The shop is for school work, not private projects.

Rule II.—Apparatus added to the school laboratories will be marked with the date and the name of the maker.

Rule III.—No loafing in the shop.

Rule IV.—Put up the tools.

The work will have to be volunteer work by the students and be mostly done out of school hours. A little can be done very profitably as regular laboratory work. In general there will be plenty of applicants to work during the winter. In view of depending upon the untrained volunteer workers, a few principles will need to be carefully followed. First, plenty of time must be allowed for the completion of any project. Second, projects must be simple. Third, it will be best not to depend upon the shop for absolutely essential apparatus which cannot be secured elsewhere, should conditions develop which would interfere with the shop production.

This now brings us to the consideration of practicable specific projects, or "What to Make?" In accordance with the third principle stated above, it is seen that the best projects consist of apparatus which is desirable but not absolutely indispensable at a stated time. This list is large, as every science teacher knows. We often do cripple along with little apparatus but we could use much more. Duplicates of simple pieces are very convenient and save much time for both instructors and pupils, and yet to purchase enough duplicates to furnish an entire class is generally too expensive. Stands, racks, holders, specific gravity blocks, measurement solids, wire connectors, electro magnets, solenoids, resistance coils, etc., come under this class. Boxes, racks and cabinets for storage of apparatus are always valuable, yet seldom do we have enough of them. Among the more elaborate pieces may be counted batteries, induction coils,

photometers, incline planes, galvanometers, etc. For these, special parts have to be purchased, but can be made very efficient and quite cheaply.

If some good workmen develop among the boys, the Scientific American plans with necessary supplies can be purchased, and good apparatus will result. Castings, materials and directions can be secured of specialty houses for making some very useful pieces, especially for electricity. A number of books are published which give detailed plans and drawings for the construction of simple apparatus. If accurate accounts are kept of shop expenditures and output, a properly managed shop will pay for itself in apparatus.

The general gains of a laboratory shop will be more than enough to warrant the trouble and expenditure. The repair, adjustment and manufacture of apparatus will be the greatest gain both in material equipment and in saving of time and in added convenience in repairs.

As an incentive and encouragement to the mechanical pupil who may be dull at his books, the shop will help both teacher and pupil. It often will help to discover pupils to the instructor and to the pupils themselves. It may help you to learn where to touch a pupil so as to get results. If it does this for one student a year it is worth all that it costs.

It will not be an impossible or an improbable result if it causes a demand for manual training. If a modest, well-managed laboratory shop should develop finally into liberal manual training courses, the shop as an educator would have been a splendid investment. Despise not the day of small beginnings.

THE VERIFICATION OF A PRINCIPLE IN PHYSICS OR ITS
DISCOVERY, WHICH?

PROF. M. N. POPE, STATE NORMAL, MAYVILLE

Most of us, I believe, have had trouble in getting our students interested in physics, that is, interested enough to really take pleasure in the work. Of course, the bad reputation that the subject enjoys is one of the obstacles never quite overcome, and our teaching is to blame for the rest of it. We have seen unprejudiced students lose interest in the work and acquire a dislike for the subject even when that bug bear "Problem" is not insistent in his demands. Isn't it true that the book work is thought dry and hard and the laboratory work irrelevant? I am sure that a good bit of the blame lies with us and our faulty laboratory method in that we insist upon the discovery of a principle in Physics when the verification of that principle is not only less difficult and more interesting, but is more nearly pedagogically correct.

The aim of physics in the high school is not to give a "diluted college course" in mathematical physics (very often it becomes physical mathematics) with the bulk of the work made up of quantitative determinations and the descriptive work neglected; nor even do we aim to simply prepare students for college; but we aim to teach the fundamental laws of nature in an elementary way, in order that our students may gain the greatest practical and cultural good for their study. This means a knowledge of the phenomenon both as to what happens and how much, together with the reasons as far as we can explain them satisfactorily in an elementary way. The office of laboratory work is to assist the text in gaining this end and therefore should be simple and concise, with a definite aim, either qualitative or quantitative.

Now there are several arguments for the "discovery" aim in laboratory work: 1st, The recapitulation theory says that we as individuals live over in our lives the history of the race and, of course, the natural method in education would be to lead the student by the same mental process as the race used up to discovery of these principles. 2nd, Scientific reasoning demands that we argue from cause to effect; consequently, we should start with causes and discover effects for ourselves. 3rd, A much greater impression is made upon the mind of a student if he himself discovers the principle.

In the first argument I would answer that no one of us, much less a student who hurriedly covers the range of physics in a year, has time to discover for himself all the principles of the subject. I would be more inclined to let him discover principles in chemistry by experiment since the range of work of the subject is not so great and observation work is more fundamental to a knowledge and understanding of the subject. Some

few experiments in physics might be admitted, but with the bulk of them it is out of the question. To the second argument, I would say that we can best develop scientific reasoning in other ways, geometry is probably the best; our aim is different. In the third place, while discovery will surely make a much greater impression upon the mind of the student, if the experiment is done intelligently, students vary so much as to ability and desire to discover, that a very small majority can be depended upon to do the work.

To the rest it would be almost wasted time, while if the principle were presented at first and the students required to suggest a way to verify that principle, their principal interest would be aroused and sustained. To suggest a method they must of necessity understand the law, and besides, their ingenuity would be exercised in developing the experiment. In this way, the laboratory experiment instead of being an isolated dead thing, becomes an interesting living reality, working with the text in its aim of practicability and general culture.

DEPARTMENT OF
HISTORY, CIVICS AND SOCIAL SCIENCES

MINUTES

OF THE DEPARTMENT OF HISTORY, CIVICS AND SOCIAL SCIENCES.

Meeting of North Dakota History Association, Thursday, December 31st, 1908.

In the absence of the president the meeting was called to order by H. L. Rockwood, who was elected temporary chairman. Miss Genevieve Turner was called upon to act as temporary secretary.

The following program was presented:

Union of History and Civics, Supt. J. A. Johnson, Hillsboro.

Correlation of Reading, Geography and History, Supt. H. L. Rockwood, Enderlin.

Discussion, Principal J. L. Estrich, Fingal.

Display of State Historical Society's Slides and Descriptive Talk, Dr. J. M. Gillette, University.

General discussion of above topics.

At the business meeting the constitution was annulled and the members instructed Supt. H. L. Rockwood to present the interests of the society to the general association, asking that a half day session might be arranged for the subject sections of the association.

The following persons were elected as officers for the following year:

President, Supt. H. L. Rockwood, Enderlin.

Vice President, Supt. J. A. Johnson, Hillsboro.

Secretary. Treasurer, Miss Genevieve Turner, Valley City.

Directors, Dr. J. M. Gillette, Grand Forks; Supt. Mattie M. Davis, Fargo.

Chairmen Committee on Publication—

Biography, Supt. Jesse Tanner, Bismarck.

Travel and Adventure, Supt. Minnie J. Neilson, Valley City.

Indian Mythology, Dr. O. G. Libby, Grand Forks.

MISS GENEVIEVE TURNER,
Secretary pro tem.

THE NORTH DAKOTA TEACHERS' HISTORY ASSOCIATION. 'PAST AND FUTURE.

SUPT. R. M. BLACK, RICHLAND COUNTY.

This association had its beginning at Grand Forks, January 3, 1908, in a meeting called by Prof. Libby of the University of North Dakota. This call asked for a meeting of those interested in history teaching, and as the State Educational Association was then in session a hearty response was given and an organization effected.

The first annual meeting was held at the University June 12, 1908, at which time plans were outlined for getting as much of the available material as convenient into print to render our own mythology and history accessible to the teachers and pupils of the state.

A meeting at the time of the state association at Valley City was suggested and a program planned. Also it was deemed advisable to ask for membership in the state association, to become one of its departments. This in brief is the history of the association.

Its reason for present existence and justification for the future lies in the work it has to do. A great work is now being done by the state historical society, but something is needed that touches the rank and file of teachers and pupils who are dealing with history in the schools.

The treatment and teaching of history has wonderfully improved in the last decade. The philosophy of history gave way to the interpretation of history and that in its turn is changing to the socialization of history. It is of little relative worth to us to know what particular deeds were done by the ancients or at any time in the past compared to our finding some lesson in sociology or government which may benefit us at the present or in the future.

It may well be said of history, "of making many books there is no end." There is no dearth of material even in a single volume. The great majority of our texts in history contain not only parts, "some to be read, some to be studied, and some to be digested," but a great many things which are immaterial and might well be omitted. Text-books are made to sell, and what may seem essential to one teacher may not so appeal to another.

We have a great mass of supplementary material in print, and nearly every period of history now has its convenient volume or set of sources. If we can help each other as teachers find a pathway through this forest of material in order to make our instruction more efficient, our association will be fruitful of results sufficient to warrant all our endeavors.

It is in the history of our own state, however, that we shall find the field of our greatest usefulness. Our state is abundantly rich, not only because the state was the home of the most interesting groups of Indian natives, but especially because of the splendid army of settlers who

transformed this immense sweep of plains, whose vastness awed even the savages, whose treasures were hidden under forbidding aspects of nature, but whose riches rivaled those of the Incas, into a homeland of more than a half million of people, who are the proud citizens of one of the most progressive commonwealths of the greatest nation in the world.

The source material for the history of this great transformation lies all around us. The official records of early days afford veritable mines of information, and being public documents may be consulted at our courthouses. The State Historical Society is preparing to publish material which may be obtained at small expense. Only a part of us live in county seat towns or near the state capitol, but nearly all newspapers have files of the paper from its earliest days. Several of them run a part column or more of items under the heading of "Twenty Years Ago." These items may afford good suggestions for topics which may be worked up as a part of the history of the community.

At present one of the most important sources and one demanding prompt attention is the active participants in the events of early days. These men and women will soon drop away. We should obtain their stories and retain them as legacies after it is impossible to get them from the living lips. I know three men who are nearing the last migration. Two of them were among the first to locate on the site of one of our flourishing cities. The other was a soldier in the days of old Fort Abercrombie. None of these are preparing to leave a single page of written history, but can talk by the hour of the old pioneer days. We need the help of hundreds of such men to get the complete story, and we as history teachers can gather up much history from them. Nearly every old settler would be willing to relate to the school incidents of his early experiences, or if too modest to give them to a public audience, he would prepare the teacher to tell the stories for him. Why not get the benefit of these memories in talks to the school?

We frequently have difficulty in finding subjects for compositions and essays for rhetorical exercises and special programs. Some pupils might find pleasure in writing upon a subject connected with local history. Such topics might be, "An Experience with Indians," "Hunting on the Plains," "A Trip to," "Amusements in Pioneer Days," and others, including biographies of early settlers. Such exercises would both interest the parents and bring out many more incidents and reminiscences of early days.

The adverse question of value would find scant footing against this kind of history work. Such work not only gives the pupil first-hand appreciation of what real history is and how it is constructed, but it vitalizes all history and the student comes to realize that he lives in and has a part in the great currents of activity which carry humanity on to its destiny.

THE UNION OF HISTORY AND CIVICS.

SUPT. JOHN A. JOHNSON, HILLSBORO.

History and civics as required by the state high school board are usually taught as two separate half courses. Each is continued through one semester. Such treatment of the subjects gives time for scarcely more than a review of the elementary work of the grades. It makes very little difference which is given first, and which is given last, the time and character of the work is such that the pupil can get but very little beyond a birdseye review of the subject. This can hardly be what is expected of people doing advanced work in the high school. They ought to get a broader and better meaning of history, and a clearer understanding of the functions and powers of government. It is the purpose of this paper to show that these larger results may be obtained by combining them, and teaching them together as one subject. At the very outset there arises naturally the question, why should they be separated? It seems to me that they are so closely related especially as each deals with national history or national civil government, that the separation has no justification. But, on the other hand, it appears, that the separation robs both of the life and interest they possess when combined.

The argument in favor of the separation of the subjects in the grades, that it simplifies both by presenting smaller wholes, may be a valid argument for the grades. But it does not prevail when used to defend their separation in the high school. The pupil in the high school, in the junior or senior year, should be able to exercise his mind over a large field of subject matter. The teacher in the high school is often disappointed because a pupil in discussing a topic is unable to give more than a single naked thought, or to utter more than a single expression. There is a narrowness of vision, lack of correlation and inability to reinforce that thought by illustration or related material. Training in reasoning requires the development of this power, but the pupil's reasoning is lame and weak. It needs cultivation. History and civics when combined affords excellent material for clear extensive thinking and thus meets the requirements of psychological law. Civil government separated from history is often abstract and meaningless. History separated from civil government loses much of its life and interest. To obtain from each its greatest educational value, then, it seems, that they should be taught together for the entire year or for the greater portion of the year as one subject. Teach the history of the United States as the history of our civil government. Teach the civil government as developed in our history instead of a subject divorced from history.

In obedience to this plan we offer one year of American history and civics combined in the schools of Hillsboro, and allow the pupils to take both examinations at the end of the second semester. The plan is so

simple that it needs no explanation and so reasonable that it needs no argumentation in its support. It means simply the study of our government as a growth of history and not something struck off at a given time.

I shall discuss the course, briefly, as we offer it. The student of advanced American history has generally completed a course in modern history and is familiar with the leading facts of European history. Introductory to this course the history of European nations is reviewed, especially as it is closely related to our early American history. This contact between our history and that of the outside world should be continued through the course. I merely mention the following topics as illustrative of such material: The Crusaders, the Fall of Constantinople, the Reformation, the Renaissance, the history of Spain at the beginning of the sixteenth century, the religious wars in France, religious intolerance in England, the Puritan Revolution. These and other topics of like interest give the student a new and broader idea of history at the beginning of the course. If the members of the class have not already studied the history of modern Europe, this work should be done by the assignment of separate topics to the individual members of the class. They should be required to report in class, and notes should be taken and kept in permanent notebooks. Such work cannot fail to create new interest in the subject. It brings out clearly the fact that there is a why as well as a when in history and clear away the mistaken notion that history appeals only to memory. The pupils at this age do not want dates and unconnected events. They want to study effects from causes? They like to discover reasons for things. This method provides abundant opportunity for such discoveries. He learns: Why Columbus discovered America; why the Spaniards were most active in the early discoveries in the New World; why there was a Puritan exodus from 1620 to 1640, why this was followed by a Cavalier emigration; why France was defeated in the intercolonial wars. This history is interesting because it is the history of nations, composed of men, in vigorous action. All the stories of discoveries in America are stories of results of causes in Europe. They should be taught as such and not as isolated facts. This work is not too difficult for high school students of the ages which students have attained when in the last two years of the school. Exploration and discoveries are too often taught as the beginning of American history, and bears to the pupil much the same relation to the subject that Greek mythologies does to the history of Greece. In the high school this mythical, isolated, incoherent beginning should certainly be cleared away and the real foundation substituted in its place. It can be done effectively in the manner described above.

Passing from the period of discovery and exploration to that of permanent colonization the subject is pursued as follows: We select two type colonies and study them intensely. Virginia is a good type of the Southern colony, and Massachusetts colony of the New England colony. After a close study of these, the history of the other colonies can be disposed of rapidly by associating them properly with the type colonies

above. Of course where striking facts have no counterpart in the type colonies they must be studied as peculiar to the colonies where they are found. This only emphasizes the fact that comparative study always brings out differences as well as similarities. This study of Massachusetts and Virginia should develop all the differences, climatic, physiographic, social and political that make a real sectional difference from the beginning of our government. I shall not discuss this ordinary history further, but shall simply say a word about the injection of civics into the course at this point. There was a similarity of government in the two colonies. This should be developed inductively by a careful study of the colonies separately. The pupil should be led to see that in either there was the complete governmental machinery of the three departments, executive, legislative and judicial. After such study of Virginia and Massachusetts the governments of the other colonies should be compared with these and the truth made clear that in general form and principle the machinery was the same throughout the colonies.

But while Virginia and Massachusetts were alike in their colonial governments, they differed radically in their local political units. This is the proper place to study the Virginia colony and the New England township. After a careful study of these units, we pass to the mixed system of the Middle colonies. With this preparation the transition is easily made to the mixed system of North Dakota. At this point in the course, the historical development and growth alone are emphasized, while a more extensive study of local government is given in the last month of the year. The reason for this is that too wide a digression may lead the student away from the point of contact with history. I shall speak of it again in this paper.

In no subject are reviews more easily conducted or more necessary than in history. Recapitulations should be made frequently, to relate events with each other. After the Intercolonial wars have been studied and when the revolution is taken up, a review is necessary. The student should review the history of the British oppression in the light of the Revolution that he may clearly understand the causes of revolt. A brief resume of the war is then made. I have found that students are more apt to remember the battles of the Revolution than anything else learned in their elementary course. It seems profitable then to emphasize another side or other sides of the period of the war. One of these is the Tory side. This is always interesting, to most students it is a revelation. They have been taught the Yankee Doodle side of the American revolution so much that they are surprised to learn that there was a considerable portion of the colonies who were not in sympathy with the revolution, but were actively in favor of the English. There is still another phase of the history of this period that needs emphasis here, and that is the national government or lack of national government of the colonies during the war. This may be introduced by making a summary of attempts at union before 1774. A study should then be made of the work of the first continental congress, followed by that of the second continental congress. During the six years of its rule its weakness became so

appalling and embarrassing that a closer union was finally hoped for in the firm league of friendship under the articles of confederation. A thorough study of the works and defects of our national government under the confederation should be made and reasons developed why the convention which drew up the constitution was finally called. A study of the government of this period is always interesting to a high school class. This study should bring out the functions which any government must have power to exercise in order to exist at all. The pupil should be led to discover that under the articles of confederation the central government did not have these powers and therefore could not live. Along with the study of the central government should be studied the power of the state, the jealousies and frictions existing between them, and their distrust of any central authority. All this study should be based upon the study of the articles of confederation as a text, just as the constitution will be used as a text later. This work well done prepared the way for the study of the government of the constitution. One of my pupils expressed this well when she said that she could tell from the confederation what was coming in the constitution. They have learned what work a government has to do and what a constitution must provide.

Before taking up a synopsis of the constitution with the class, they should study the convention which framed it. They should study the difficulties which confronted the convention, the most interesting arguments, the prominent men present and their work. After the constitution had been adopted by the convention, the question of its ratification is the question before the people of the separate states. This should be studied. The pupil should learn where and by whom it was favored and where and by whom it was opposed. When the teacher asks a class of high school students to study arguments there is always the danger of expecting too much. All that should be required is a brief summary of the principal arguments on both sides. Avoid going into detail. This is not a summary course or a college course in history, and work that might justly be expected in such courses must be avoided here.

After studying the adoption and ratification of the constitution, the student is prepared to take up the constitution itself. This study should not take more than two weeks. This is sufficient time here in as much as we are concerned with its frame work only and shall add meaning to it throughout the entire course. I like to teach it in tabulated form, in various ways. For example, the national officers provided for by the constitution, their qualifications, mode of selection, term of office, etc., can be placed before the class very concisely in this way. A table contrasting the constitution with the articles of confederation may be worked out in a similar way. Likewise the students may prepare tables of prohibitions in state and national governments, of powers of the three departments. This does not mean that an exhaustive study of the constitution should be made at this point, but it means exactly the opposite. Let me make this clear by mentioning some things that I would teach here. I would not take up the study of the executive departments in this outline, I would omit the organization of our national courts, methods of

borrowing money on the credit of the United States, the Embargo Act, the Interstate Commerce Act. Those must be taught along with the study of the constitution in course where civics is taught separately, but in this course they can be left for their proper places in history. The study of the first ten amendments is made more profitable by comparing them with the English Bill of Rights. The students should be required to do this and to explain why the American people insisted that those amendments should be added to the constitution.

I do not require a further study of the constitution at this point, but throughout the entire course the pupil is kept in close contact with it. To illustrate what I mean by this, the administration of Washington may be taken as a study. It is time of beginning, and affords an opportunity to study the government in the making. The confederation surrenders unconditionally to the constitution. It provides for the inauguration of the new government and then expires. As a part of the first lesson I would like to give a number of search questions of the following nature. How was Washington elected? Who fixed upon the 4th day of March as the day of inauguration? Who administered the oath of office to George Washington? Who presided over the senate before the inauguration of John Adams? How many members composed the first House of Representatives? These questions bring the student back to the constitution. The principal historical material of this administration has to do with the legislative work of the first congresses. We have the creation of three executive departments. The organization and creation of federal courts, the provision for concurrent jurisdiction of state and federal courts in some cases, with ultimate appeal to the supreme court, the levying of import and excise taxes, the creation of a large number of offices, the establishment of a United States bank, and a large number of other important acts. In studying these the student is always asked to give the constitutional authority of congress in passing the act. This takes him back to the constitution and gives a particular power to congress real meaning because he has studied the congressional exercise of the power. In studying the establishment of the United States bank he is introduced to the subject of implied powers, one of the most interesting subjects in our early history. The student should know what the "Elastic Clause" is and what use Hamilton made of it in arguing the constitutionality of the United States bank as opposed to the doctrine of implied powers should be developed the opposite doctrine of strictly delegated powers. Here he finds the beginning of political parties in the United States. Jay's Treaty gives an opportunity for studying the treaty making power of the national government. It emphasizes the fact that he may act through a representative, that the treaty must be ratified by the senate, and that the house of representatives may defeat the treaty by refusing to vote appropriations where it is necessary to the fulfillment of the treaty. The history of Jay's Treaty takes up all the treaty making machinery. This is a good lesson in civil government, and a good study of the constitution. This shows how civics and history may be taught together in taking up the administration of Washington. The plan may

be used equally well in the succeeding parts of our history. You may object that civics is emphasized over history in this course. My discussion may provoke that objection, but I have done so to comply with my subject. In the working out of the course more time is actually given to history than to civics. I have emphasized civics to show that the logical place to teach a part of the constitution is where it applies directly to our history; not as a whole given at one time, but as a growth of 120 years. The eleventh and twelfth amendments came later in our history, because defects are discovered in the original constitution. They should be studied there. The last three amendments follow the changes made in our social life by the civil war. They should be studied in relation to the history which produced them.

Turning to the history of the subject the following brief outline suggests the method pursued. I believe it is good pedagogy to take up the material of history chronologically at first. In review, however, that material should be organized about a few fundamental topics. The student should trace the history of slavery as a related whole from its appearance in our history to its final settlement. Similarly he should study the history of the United States bank, internal improvements, the tariff question, state's rights doctrine, immigration, the growth of the west, the reconstruction, and the late industrial developments. Along with this study he should be taught to criticize and commend public acts and public men. He should be taught to think politically. For example, he should point out defects in our electoral college and our present method of electing U. S. senators. He should study public men of history and of today. He should be required to study newspapers and become acquainted with the present trend of politics and of government. He should be led to see the relation of our political history to our industrial history.

The course as far as I have outlined should be completed in about eight months. The last month should be devoted to a review of state and local civics and problems. This can be done in a short time, because the pupils know what to look for in government.

I think this course has helped me to secure an interest in subjects which I could not obtain by teaching the subjects separately. In closing I offer this testimony of one of my pupils, a girl, "I did not know that history and civics were so interesting."

ON AMERICAN HISTORY AND CIVICS UNITED.

FRIM. C. D. SPAULDING, FARGO.

Superintendent Johnson's paper on the "Union of American History and Civics" failed to reach me, consequently I am unable to discuss his excellent paper.

American history and federal civics can and ought to be united, but American history and state civics cannot be combined in any advantageous way. History in the last few years has been interpreted in a new language. We no longer view history from the standpoint of ethnology, nor of a record of chronological events, nor of a hero worshipper, but from the standpoint of political history. History no longer means a record of the past only, but a new element has been read into it and that element is growth; growth from a lower to a higher, from the simple to the complex. The scientific mind, grounded in the principles of evolution, has been turned upon history and the most fruitful area has been found in the history of the rise and fall of governments. So I believe that political history has come to stay or until some one shall give the world a new thought that will replace evolution. It is, therefore, growth that we are studying, and that growth in American history is the rise of our political institutions. We may trace the rise of our federal government from the New England town meeting in the north and the "House of Burgesses" in the south, to its present constitutional form. When in our study of American history we have the constitution framed and adopted, we have arrived at the junction from which federal civics branches. (I mean by civics the study of the government as it now exists. Names of officers, length of office, salary, duties, etc.) The student is already familiar with the three branches of government and in most cases with the function of each. He knows how we came to have a president, senate, house of representatives, etc., whatever view as to the origin of these branches of government has been taught him. Fully three-fourths of the duties of each branch, he knew before he had read the constitution. It is a maxim that no one really understands a thing until he knows the history of it. In a broad sense the converse is true, that when one knows the history of the rise of government, he knows its civil government. American history, as taught today, cannot be separated from federal civics. Should American history and civics be united? The answer is that they are now united and cannot be separated. However when we come to state civics it is a very different thing that confronts us. There used to be a course of study for the high schools of New York state that contained the subject of New York state history. Yet it is difficult to see how state history and civics could have been combined even in New York, though so fertile a field for the work. In North Dakota the writing of its history seems to be a strenuous task. Surely its political history would doubtless be accomplished

with still greater difficulty. We need our state civics text book, however well we may know our American history. American history can never tell us the county officers of Barnes county, term, salary, duties, etc. The civil government of county, town, city, ward, etc., if taught in connection with American history is a digression. The real question of the union of American history and state civics, then reduces itself to a practical one. Have we time for the digression. We certainly have not the time to study the present local governments of every state. If we confine ourselves to our state civics, perhaps a short time can be given up to its study. But in no instance can American history and state civics be combined, but only by this mechanical method.

THE CORRELATION OF READING, GEOGRAPHY AND HISTORY.

SUPT. H. L. ROCKWOOD, ENDERLIN.

Ladies and Gentlemen: The writer purposes to treat this subject with a primary and secondary object in view. The secondary object is a suggestion that might be a possible answer to the last part of the question three "C," page nine of the preliminary report of the committee of seven, appointed by the North Dakota Educational Association, for the adjustment of educational work. The primary object will be to call attention to the relationship existing between the subjects under discussion and the advantages of the same. This necessitates threshing over an old story, known by many, told by some, but practiced by few. In the teaching of these subjects with reference to their relationship is an advantage as the writer believes it to be, then this is an opportune time to call the attention of the teaching public to the fact when there are so many useful departments clamoring for admission to our already too full curriculum. It is possible that this demand may become the cause which will bring about a very desirable condition of affairs, namely, putting the pupils in such a condition as to enable him to view more or less clearly the paths ahead over which all must travel either as leaders or followers.

It is evident that the more clearly these paths are made visible, the more readily an advantageous one can be selected. Two elements are therefore necessary, first an elevated viewpoint, second a strengthened searchlight. The first must be furnished by our educational system. The second must be acquired by the pupil himself though aided by the instructor. The view point might be procured by constructing a tripod, the three legs of which would be the three subjects under discussion. The following proposition and its proof might be suggested here: Reading furnishes the key that unlocks the door to practically all information the pupil will ever acquire. History is the largest and most interesting dark room back of this unlocked door. Geography is the bright and radiant beam shining through the gradually opening door, revealing the wonderful objects within this room, and the harmonious relationship existing between them. If reading furnishes the key it naturally follows that the better the conditions of the key the more readily it will perform its function. The purpose of reading as we understand it, is interpretation. Interpretation for self and for others. During the first two years of the pupil's school life he learns to read. From then on he reads to learn. Learn of what? Our text books are made up largely of stories that contain absolutely no useful knowledge though they are interesting. The writer has no objection to such stories unless it be their superabundance. He does not believe, however, that some other kind might be substituted in part at least, that would serve all the purposes of those in use and another at the same time. What material this is and the added purpose

will be explained later. At this time let us turn our attention to the history part of our subject. History, we are told, is the record of the activities of men and nations for thousands of years. Whatever of the many definitions of history may be used, it seems that the subject matter deals very largely with the same material. We are told that the histories of the past have given about thirty per cent of their space to the description of wars, not causes and effects of wars, but the accounts of the battles, the maneuvers of the armies, number killed, wounded, taken prisoners, etc. While the more recent books are getting away from that idea, there is undoubtedly too much of it in most of our books even now. If so large a portion of it is unnecessary as it seems to be, then have it omitted. It is obvious that a considerable time will thus be saved. Before passing this point it might be well to say that the reason no argument is given here, why these things are unnecessary is that modern history writers who are catering to the public demand are constantly omitting more and more of it. There is plenty of argument that might be presented. Another point which is being discussed by many and practiced by not a few is the question which if settled as the writer thinks it should be, will relieve the history student of no small amount of his burdens, the subject itself of its drudgery and remove the barrier which turns back so many of the younger history students. You undoubtedly have already guessed that it is the question of dates to which reference is made. One prominent educator who stands well toward the top as a teacher of history in this state, declares that, "There is no history without dates." Another that, "It is as essential to know dates as to know the multiplication table." If this idea is correct, then to the writer the subject ceases to be one that furnishes the pupil in an agreeable form an antecedent for many of the questions he must face. Becomes an unlimited quantity of agreeable information mastered, if at all, only by the prodigy. A subject that will be ignored by the majority of pupils. While the valuable portion of the subject is there just the same it is mixed with unpleasantness enough to discourage many. If on the other hand we study it with the view of understanding the cause and effect of the great movements of civilization, the relation of these movements to the life of the time, and their value as a guide to the future, it becomes not only a vital but agreeable subject, and one that can be mastered by the majority of students. It is then that it becomes the searchlight by which the pupils, when they become men and women are aided to select the most direct paths through the otherwise unknown future. Notwithstanding the opportunity for questioning the stand taken, the writer will rely on the many splendid articles written to defend this point and take as proved the proposition of omitting a large per cent of exact dates.

Geography deals with the physical condition of men and nations. It is here that the pupil is told of the divisions of the human race; the kind of clothes each wear; what they eat; how they live; the enemies of each in the shape of wild animals about his home, etc., etc. While this is not only essential but beneficial knowledge, yet the fact that geography furnishes a blue print, so as to speak, of all the known world, makes

the subject far more necessary. If the blue print phase of the subject is so necessary would not the reproducing of this element be highly helpful to all pupils. The cities, national boundary lines, and some other conditions, may change, but rivers, mountains and continents remain practically the same. It seems to the writer that every pupil should become able to locate all important divisions. This can only be done by doing, first seeing it on a map that is supposed to be perfect, then drawing the map. Objections will be raised, but all learn to write, all can do the same in drawing, and only by so doing can we locate places. All have seen spoons thousands of time. Which way does the handle turn, up or down? Now comes the question. Can the essential of these three subjects be woven together in such a way that for most of the grades they form one study? This seems to be a difficult operation, and is even more difficult than it seems. Let us not hesitate to suggest a plan that by improving may accomplish this purpose. Early in this paper the statement was made that about the third year the pupil should begin to read to learn. Could not the stories of our historical characters be to a much greater extent woven into the same kind of stories as are now in the early readers? Could not a large part of the material in geographies be so arranged too? Could not these take a more prominent place as the advances in grades are made? Could not each room be supplied with maps, and the location of the plot, if such we may call it, to be studied at the same time. How well the writer remembers "Washington's Journey Through the Wilderness," studied in this manner in about the fourth grade. The writer is of the opinion that if this combination can be made, reading will have an added interest, history will be studied more for its influence on the people today in determining their actions of tomorrow, and geography will not suffer but may enjoy some little improvement from the standpoint of the map question. If this is possible, then but little time in the grades will be required for a separate period to consider either of the last two divisions. Very likely not over one year for both of them. In that case we will have more time to give to the other subjects which are asking so earnestly for admission to our course of study.

DEPARTMENT OF
MUSICAL EDUCATION

MINUTES

OF THE DEPARTMENT OF MUSICAL EDUCATION.

The musical section, known as the musical department, within the North Dakota Educational Association, was organized December 31, 1908.

The following officers were elected:

President, Miss Fanny C. Amidon, Valley City.

Vice President, Miss Clara Aldahl, Valley City.

Secretary, Miss Mary E. Pett, Minot.

Treasurer, Miss Eleanor Dougherty, Geneseo.

A committee consisting of Miss Amidon, Miss Dougherty and Miss Pett were appointed to formulate a petition asking admission to the State Educational Association.

At a business meeting of the association Thursday evening, December 31, 1908, the petition was accepted and by unanimous vote the Musical Department became a part of the North Dakota Educational Association.

January 1, 1909, at 10 a. m., Miss Eleanor Smith, of Chicago, addressed the Musical Department, discussing principally, "What Shall the Children Sing?" She played and sang a number of songs as illustrations of the important points of her talk.

Before playing the first selection Miss Smith asked the audience to decide, as she played, what thought was expressed by the music, and it was generally agreed that it was either a barcarolle or a dance. She then said that she once heard children singing, to this air, the words of a majestic hymn. She pointed out the danger of selecting music, considering only the composer, and told of an arrangement of Liszt's "Gypsies' Lament," to which had been set the words of "The Whistling Farmer Boy," and strongly impressed the thought that the words must not only be appropriate, and well suited to the age of the child, but they must also agree in spirit with the music.

Miss Smith spoke of the need of songs suited to the boys who have reached the age when they scorn lullabies and doll songs, and require songs that appeal to their spirit of daring and adventure. She sang several songs of this character.

As an illustration of the influence of so-called "ragtime" music upon adults as well as children, she told a story of a personal experience at Hull House. One afternoon the children and Miss Smith were entertaining the mothers. All was quiet and orderly until Miss Smith left the room. When she returned a few moments later, some one was seated at the piano playing a popular song, which had changed the whole atmosphere. The children were boisterous and the mothers talked in harsh, nasal tones, and beauty, poise and dignity had been changed to confusion and clamor—the direct result of the music. This story afforded the suggestion that good music might be used by the teacher as an agent of discipline in keeping order and quiet in the school room.

After her lecture Miss Smith met, throughout the day, supervisors and those interested and discussed with them public school music work, giving them freely from the knowledge she had gained through her many years of rich experience. All gained a broader and deeper outlook upon their work and received an inspiration that must result in better music throughout the state.

MARY E. PETT,
Secretary.

CONSTITUTION

ARTICLE I—NAME.

This organization shall be known as the North Dakota Education Association.

ARTICLE II—PURPOSE.

The purpose of this association shall be to elevate the character and advance the interests of the profession of teaching and promote the cause of education in North Dakota.

ARTICLE III—DEPARTMENTS.

Section 1. This association shall consist of the following departments:

1. Higher and professional education.
2. Secondary education.
3. County superintendence.
4. Elementary education.
5. School administration.

Section 2. Other departments may be organized by a majority vote of the association at a regular annual meeting upon petition of ten active members.

ARTICLE IV—MEMBERSHIP.

Section 1. There shall be two classes of members, active and associate.

Section 2. Active members shall consist of all those engaged in educational work who shall have paid the annual dues for the preceding year.

Sec. 3. Any other person who has been a member and who has paid his dues for the two preceding years, shall be considered an active member.

Sec. 4. Any person engaged in educational work may become an active member by paying the annual dues and his membership fee.

Sec. 5. Any person paying an annual fee of one dollar may become an associate member.

Sec. 6. The membership fee and annual dues shall be \$1 each.

Sec. 7. Active members only shall have the right to vote in this association.

Sec. 8. All active members shall be entitled to a volume of the proceedings.

ARTICLE V—OFFICERS.

Section 1. The officers of this association shall consist of a president, two vice presidents, secretary, treasurer and an executive committee.

Sec. 2. The executive committee shall consist of the president and the secretary of the association.

Sec. 3. The president of the association shall be ex-officio president of the executive committee.

Sec. 4. The duties of the president, secretary and treasurer shall be such as usually pertain to such officers.

Sec. 5. The duties of the executive committee shall be to prepare the program and to make such arrangements as are necessary for the annual meeting.

Sec. 6. The member from each department shall prepare the program for his department.

Sec. 7. Each department shall be administered by a president, vice-president and a secretary, the state superintendent being, ex officio, president of the department of county superintendence.

Sec. 8. No person shall be elected to any office in the general association or in any department who is not an active member of the association.

ARTICLE VI—COMMITTEES.

Section 1. A committee of five on resolutions and a committee of three on necrology shall be appointed by the president at the first general session of the association.

Sec. 2. The committee on nominations shall consist of two members to be elected by the general association and one from each of the departments at the first session of each.

ARTICLE VII—TIME AND PLACE.

Section 1. The association shall meet in Grand Forks and Fargo on alternate years and at such date as the executive committee shall determine.

ARTICLE VIII—AMENDMENTS.

This constitution may be amended by a two-thirds vote of the active members present and voting at any regular meeting, notice of such amendment having been given at the first session of the association.

AMENDMENTS.

Amendment to Article V, section 4 (passed in 1907).

Sec. 4. The duties of president and treasurer shall be such as usually pertain to such offices.

The secretary shall perform such duties as are required of him by the executive committee and shall receive fifty dollars per annum for his services, and he shall receive further all necessary expenses of conducting his office.

Amendment to Article VII (passed in 1907).

The association shall meet annually at Grand Forks or Fargo, or such other cities of the state as the association may from time to time elect.

Article IV was amended in 1908 to read as follows:

Section 1. There shall be two classes of members, active and associate.

Sec. 2. Any person engaged in educational work and any member of a board of education shall become an active member of this association

upon payment of the annual dues of one dollar; provided that the adoption of this amendment shall not affect the privileges of any person now enjoying membership in this association.

Sec. 3. Any person not engaged in education work shall become an associate member of this association upon payment of the annual dues of one dollar.

Sec. 4. Active members only shall have the right to vote in this association.

Sec. 5. Every member shall be entitled to a volume of the proceedings. Article V was amended in 1908 to read as follows:

Section 1. The officers of this association shall consist of a president, two vice presidents, a secretary, a treasurer, an executive committee and an auditing committee.

Sec. 2. The executive committee shall consist of the president and secretary of the association for the ensuing year, the state superintendent, and one member elected annually from each of the following departments: Department of Higher and Professional Education, Department of Secondary Education, Department of Elementary Education, Department of Superintendence, Department of School Administration.

(Sections 3 and 4 are unchanged.)

Sec. 5. The duties of the executive committee shall be to prepare the program and make such arrangements as are necessary for the annual meeting. The annual meeting of the executive committee shall be held prior to the fifteenth of June of each year. Each member of this committee elected from a department shall, at this annual meeting, present a tentative program for the department from which he was elected. The committee shall have the data for the final program in the hands of the secretary six weeks prior to the date set for the annual meeting.

(Sections 6, 7 and 8 are unchanged.)

Sec. 9. The finance committee shall consist of three members elected annually by the association.

Sec. 10. The duties of the finance committee shall be to authorize the payment of all bills, and to audit the accounts of the secretary and treasurer.

DEPARTMENT OF
SCHOOL ADMINISTRATION

OFFICERS FOR 1909.

President C. E. Best, Enderlin
Secretary R. B. Cox, Wimbledon
Member Executive Committee Homer Hilborn, Portal

MEMBERSHIP

ACTIVE MEMBERS.

| | |
|---|-------------|
| Aaker, H. H. | Fargo |
| Abbey, M. J. | Mayville |
| Abbott, N. C. | Deering |
| Aldahl, Clara B. | Valley City |
| Amidon, Fannie C. | Valley City |
| Amundson, Augusta | Valley City |
| Andrews, Charlton | Valley City |
| Anderson, Peter | Crystal |
| Arvis, Anna E. | Litchville |
| Atkinson, Anna | Pembina |
| Aylmer, A. L. | Jamestown |
| Babcock, E. J. | Grand Forks |
| Barnes, M. W. | Valley City |
| Bailie, Georgia | Valley City |
| Barker, Grace | Grand Forks |
| Barton, O. A. | Valley City |
| Bean, A. M. | Fargo |
| Berg, P. S. | Dickinson |
| Best, Charles E. | Enderlin |
| Biggs, J. A. | Valley City |
| Bird, Olive J. | Grand Forks |
| Bjorke, C. M. | Driscoll |
| Black, R. M. | Wahpeton |
| Brant, Edith E. | Mayville |
| Blackmon, J. W. | Minnewaukan |
| Buffum, Hugh S. | Valley City |
| Butterfield, H. F. | Mayville |
| Burch, E. G. | Wahpeton |
| Bolley, H. L. | Fargo |
| Butterfield, H. F. | Mayville |
| Burr, Elizabeth | Grand Forks |
| Byrne, Lulu | Grand Forks |
| Cahill, J. I. | Sanders |
| Cain, Mary J. | Carrington |
| Carr, Mrs. Fred | Valley City |
| Carrington Special District No. 10, C. H. Riemers | Carrington |
| Cavett, C. E. | Sheldon |
| Champine, Jennie, | Fargo |
| Chandler, E. F. | Grand Forks |
| Chapple, B. P. | Bathgate |
| Christenson, P. E. | Bottineau |
| Clyde, E. T. | Ashley |

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| Cole, Leonard T. | New Rockford |
| Cotton, F. | Minot |
| Crane, A. G. | Jamestown |
| Crocker, W. G. | Lisbon |
| Crouch, C. H. | Grand Forks |
| Cutler, Gertrude | Windsor |
| David, W. H. | Rugby |
| Davies, G. R. | Amenia |
| Davies, M. Helen | Grand Forks |
| Davis, Frederick | Hettinger |
| Dean, W. P. | Washburn |
| Deem, Mary | Valley City |
| Diller, H. J. | Dickey |
| District No. 21, Barnes county, A. E. Coleman | Rogers |
| District No. 71, Barnes county, Geo. H. Simpson | Rogers |
| Duer, Iva B. | Valley City |
| Dunbar, B. A. | Park River |
| Edwards, E. R. | Minto |
| Ellithorpe, C. | Williston |
| Fansler, Minnie | |
| Faust, Chas. J. | Esmond |
| Fischer, E. | Fessenden |
| Fisher, Alice J. | Valley City |
| Fisher, Joseph | Wales |
| Fitch, Elmer J. | Pembina |
| Forster, Geo. F. | Harvey |
| Ft. Ransom School District, Ransom county, L. B. Anderson .. | Ft. Ransom |
| Frederickson, Edward | Hannafor |
| French, Jesse | Buffalo |
| Fridd, Blanche | Valley City |
| Gang, John | Cando |
| Gaulke, Nettie, | Thompson |
| Gensmere, Minnie B. | |
| Gilbert, District, Ransom county, Geo. Hanna | Lisbon |
| Gillette, J. M. | Grand Forks |
| Gilmore, Geo. H. | Bowman |
| Gleason, A. H. | Crary |
| Gleason, R. S. | Sioux Falls, S. D. |
| Godward, W. A., | Devils Lake |
| Gray, C. C. | Grafton |
| Greenwood, Mrs. W. M. | Valley City |
| Groom, B. E. | Langdon |
| Gummer, Arthur | Perth |
| Hackett, Edna | Valley City |
| Hackett, Elsie, | Valley City |
| Halland, J. G. | Fargo |
| Hankins, Fred H. | Linton |
| Hankins, S. T. | Oberon |

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|---|----------------|
| Hanna, Geo. W., Mrs. | Valley City |
| Hanna, Geo. W. | Valley City |
| Hanson, Chas. | Walcott |
| Hanson, H. H. | Linton |
| Hatherell, Miss R. A. | Grand Forks |
| Hemp, Josephine | Lidgerwood |
| Herrick, Mrs. Una B. | Valley City |
| Heyward, Aaron | Cavalier |
| Heyward, Richard | Grand Forks |
| Hilborn, E. C. | Valley City |
| Hillyer, T. A. | Mayville |
| Hinman, Lyddia | Steele |
| Hoadley, E. D. | Minnewaukan |
| Hollis, A. P. | Valley City |
| Holmes, Martha T. | Englevale |
| Hoover, W. E. | Fargo |
| Hunter, M. S. | Munich |
| Hurd, Ora L. | Steele |
| Hutchinson, Fred V. | LaMoure |
| Island Park District, Ransom county, W. J. Brush | Lisbon |
| International District No. 78, Ward county, H. W. Hillborn | Portal |
| Jackman, O. J. | Grandin |
| James H. | Mott |
| Jarvis, Frank | Oakes |
| Jenness, Iva O. | Hensler |
| Johnson, J. A. | Hillsboro |
| Johnson, Morris | Valley City |
| Kampen, I. A. | Cooperstown |
| Keene, Pearl | Valley City |
| Kelley, J. Nelson | Grand Forks |
| Kemmer, M. W. (Shepard District No. 8) | Lisbon |
| Kennedy, Joseph | Grand Forks |
| Kern, W. M. | Ellendale |
| Kitchen, J. A. | Sentinel Butte |
| Knowlton, P. G. | Fargo |
| Kreutz, Amelia | Grand Forks |
| Kronebusch, Nicholas | |
| LaMont, R. M. | Fargo |
| Leonard, G. W. | Lakota |
| Liberty District No. 26, Bottineau county, Geo. Hastings | Bottineau |
| District No. 3, H. E. Severson | Sheldon |
| Libby, O. G. | Grand Forks |
| Linn, Louis P. | Drayton |
| Lischefska, E. E. | Milnor |
| Lorin, W. L. | Mandan |
| Lovell, G. M. | Ellendale |
| Lovett, Laura G. | Knox |
| Luther, Louise | Fargo |

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| Mack, H. D. | LaMoure |
| Macdonald, Kate, | Lidgerwood |
| Macdonald, N. C. | Lidgerwood |
| Mattson, Ellen | New Rockford |
| McArdle, H. W. | Fargo |
| McBee, A. L. | Minneapolis, Minn. |
| McCarten, Tene | Foreman |
| McEachren, A. E. | Minto |
| McCalmont, R. A. | Napoleon |
| McGregor, Jennie | Valley City |
| McDonald, Dalton | Towner |
| McDonald, Florence | Valley City |
| McFarland, G. A. | Valley City |
| McKinney, Nellie | Valley City |
| McLain, J. F. | Towner |
| McMillen, P. A. | Carrington |
| McMullen, Lynn B. | Valley City |
| Mendenhall, William | Newville |
| Meyer, J. B. | Valley City |
| Miller, Eula | Fargo |
| Miller, A. G. | Sherbrooke |
| Mitchell, Frank N. | Edmore |
| Moore, William | Bismarck |
| Morrish, Ada | Mayville |
| Morrill, Frances | Valley City |
| Muller, A. G. | Portland |
| Murphy, R. B. | Tower City |
| Nelson, Alma E. | Valley City |
| Newell, Blanche | Valley City |
| Nielson, Minnie C. | Valley City |
| O'Brien, Kate | Fargo |
| Olson, Henry C. | Washburn |
| Oldham, Alice | Grafton |
| Palmer, Bertha | Larimore |
| Perrine, L. L. | Valley City |
| Petit, Mary | Minot |
| Peterson, J. N. | |
| Peterson, Mrs. Lizzie | Caledonia |
| Phelps, J. N. | Crosby |
| Pierson, T. G. | Hope |
| Pollock, Mina | Fargo |
| Prindeville, Helen | Grand Forks |
| Pugh, Florence | Larimore |
| Randalls, Geo. | Valley City |
| Rairdon, Frank | Forman |
| Rawlins, Cora | Valley City |
| Raze, Floyd D. | Anamoose |
| Regan, Maude T. | Fessenden |

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| Reid, Elsie | Valley City |
| Ridlington, Dan J. | Langdon |
| Riley, J. W. | Wheatland |
| Robertson, Ella M. | Larimore |
| Robertson, E. P. | Grand Forks |
| Rockwood, H. L. | Enderlin |
| Rodgers Dist. No. 68, Mrs. Thos. Lynch | Rodgers |
| Rose, Louise | Langdon |
| Rutherford, Margaret | Mayville |
| Sampson, E. K. | Marion |
| Sanderson, Anzonette | Valley City |
| Sanvain, Nelson | Casselton |
| Schmidt, C. C. | Grand Forks |
| Scott, Cora A. | Dawson |
| Seiple, Lucy B. | Rugby |
| Senning, John P. | Grand Forks |
| Shaw, Leta V. | Larimore |
| Sherarts, F. M. | Larimore |
| Sherry, E. M. | Rollo |
| Srivseth, B. O. | Lakota |
| Smith, F. E. | Wahpeton |
| Smith, Mrs. F. E. | Wahpeton |
| Smith, L. C., | Minneapolis, Minn. |
| Smith, R. E. | Hankinson |
| Springer School District, Ransom county, F. D. Maddocks | Lisbon |
| Squires, V. P. | Grand Forks |
| Stegenga, D. M. | Fessenden |
| State Normal School | Mayville |
| Stebbins, W. C. | Grand Forks |
| Stevens, Blanche | Casselton |
| Stevenson, Rose | Mandan |
| Stewart, G. W. | Grand Forks |
| Stewart, Violet | Grand Forks |
| Stockwell, W. L. | Bismarck |
| Stratton, Frederick E. | Fargo |
| Sutton, M. D. | Mandan |
| Twamley, Edna | Grand Forks |
| Tatem, Martha | Williston |
| Taylor, Alice | Valley City |
| Taylor, E. J. | Bismarck |
| Teigen, N. T. | Minnewaukan |
| Thomas, Geo. S., | Grand Forks |
| Thordarson, Franklin | Mayville |
| Thorson, Andrew | Hatton |
| Tormey, M. J. | Aberdeen, S. D. |
| Tracy, A. W. | Minot |
| Travis, Clyde R. | Mayville |
| Turner, Genevieve | Valley City |

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| Vannier, Laurine | Devils Lake |
| Vigness, C. L. | Bismarck |
| Vittum, Edward | Fargo |
| Vorachek, Pauline | Milnor |
| Wagle, Anna | Valley City |
| Wakefield, A. M. | Walhalla |
| Waldron, C. B. | Fargo |
| Walgamot, Winnifred | Grand Forks |
| Wallace, B. A. | Hillsboro |
| Waller, Mrs. C. E. | Minot |
| Wambheim, Mary | Hatton |
| Wanner, Fred | Jamestown |
| Warnken, L. A. | Emerado |
| Warren, E. G. | Minot |
| Weeks, A. D. | Fargo |
| Wells, A. B. | Wells |
| Wells, B. B. | Grafton |
| West, J. C. | Webster |
| Whitney, Catherine | Grand Forks |
| Willard, D. E. | Fargo |
| Wilson, Troy J. | Osnabrook |
| Wimbledon District No. 82, B. B. Cox | Wimbledon |
| Wolfe, S. Henry | Minot |
| Woods, A. L., | Grand Forks |
| Woodruff, Will R. | Bowbells |
| Worst, J. H. | Fargo |
| Youngdall, E. G. | Northwood |

ASSOCIATE MEMBERS.

| | |
|--------------------------|-------------|
| Albrecht, H. G. | Wahpeton |
| Anderson, L. B. | Valley City |
| Baarstad, Louise | Nome |
| Banish, Jacob | Milnor |
| Beaty, Mary | Carrington |
| Beham, I. H. | Mapleton |
| Berland, Alma | Nome |
| Bettinger, Lillian | Valley City |
| Boysen, Mary | |
| Brand, Dorothy | Sheyenne |
| Buckley, Mae | Minot |
| Bull, Jorina | Cooperstown |
| Buller, A. A. | Rose Hill |
| Carlson, Amanda | Valley City |
| Carlson, Emma | Valley City |
| Cole, Agnes | |
| Croswell, W. T. | Valley City |
| Crocker, Ada | Lisbon |
| Daugherty, Eleanor | Genisea |

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| Davidson, P. G. | Valley City |
| Dudley, Belle | Grand Forks |
| Dukette, C. S. | Conway |
| Dundass, Bela | |
| Egge, John J. | Hampden |
| Elliott, Mary | |
| Emberland, John | St. Paul |
| Everson, Ella | Grafton |
| Fieldstad, Rose | |
| Flora, Frank | Valley City |
| Flynn, Mary | Jamestown |
| Fuqua, Leslie | Erie |
| Goodal, M. | Enderlin |
| Gregor, Effie | Medina |
| Gregor, Louise | Medina |
| Hagland, Anna | Medina |
| Hall, Jennie | Jamestown |
| Halverson, M. J. | Streeter |
| Hanson, George | Nome |
| Hasselquist, T. A. | Fargo |
| Hill, Florence | |
| James, Iva | |
| Jones, Joseph E. | LaMoure |
| Kemp, H. E. | Valley City |
| Lenhardt, Ed. | Valley City |
| McCole, Agnes | Ellendale |
| Morrison, Nellie | Niagara |
| Murphy, Lizzie | |
| Nielson, Minnie | Nielson |
| Ogden, Ida | |
| Plasterer, Blanche | Dazey |
| Pray, W. H. | Valley City |
| Randlett, J. W. | Fargo |
| Richards, Eva | Valley City |
| Rideaux, Stanley | Enderlin |
| Ritchie, D. S. | Valley City |
| Sand, W. H. | |
| Sanderson, Laura B. | |
| Schnebeley, Jennie | Valley City |
| Scovill District, Ransom county, S. J. Sanders | Scovill |
| Stahlem, Tilda | |
| Stalley, Edith M. | Fargo |
| Strong, F. R. | Milnor |
| Tenold, Dena | Sharon |
| Tollefson, Marie | |
| Thomson, Margaret | Edmunds |
| Vorachek, Lillian | Milnor |
| Vatne, Wilhelme | |

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| Vowles, G. T. | |
| Wall, Joseph | Mercer |
| Wagness, Gina | Finley |
| Ward, Cecil | |
| Westergard, Mrs. Jennie | Valley City |
| Williams, F. C. | Lincoln, Neb. |
| Wilson, A. C. | Tower City |
| Wilson, D. Irma | Dazey |
| Zabel, Amanda | Oriska |
| Zabel, Elsie | Oriska |
| Zahn, Mercides | Valley City |

PROCEEDINGS

OF THE

SECOND ANNUAL MEETING

OF THE

NORTH DAKOTA LIBRARY ASSOCIATION,

HELD AT GRAND FORKS, NOVEMBER 1 AND 2, 1907.

The opening session of the second annual meeting of the North Dakota Library Association was held in the Public Library, Friday, November 1, 1907, beginning at 4 o'clock, with fourteen in attendance. The following address of welcome was made by the president, Mr. Frank J. Thompson, of Fargo:

January 18, 1906, in Fargo, was an epoch making day in the history of the library movement in the state, for then the North Dakota Library Association came into existence. It was an epoch, because this date, in a way, marked the end of what we had not, and became the beginning of the thing needful to communities matured and stable. And all this from the trackless prairies of only a generation ago, reserved for the Indian, and the charnel house of the American Buffalo. The white man's power then came usurping, and wrung from the virgin plains the sustenance and comforts of life; clothed barren spots in green and adorned common-place localities with the comforts and luxuries of city and village life.

That our association has not done greater things is no more against it than the weakness of the infant is told as reason of its uselessness. It has been *in esse*, and by fact of that existence, is officially recognized by the state, and thus put in closer touch with the purposes for which the society was organized.

MEETING POSTPONED.

Under the resolution adopted at the meeting in Fargo, the date of our next session was subject to the call of the executive committee. By a sort of tacit understanding, this session was to be held at the time of the meeting of the State Educational Association during the Christmas holidays. To your president, there is something unjust in asking teachers, or librarians, to give up those days, so full of sweet memories, and so necessary for the tired worker in the vineyard of public weal, that he balked at the idea, and no meeting was held. Railroad travel for the rest of the winter was too uncertain to justify a call, and the time has not seemed auspicious for a gathering until the present. Yet, though our association corporeal has apparently slumbered, the influence of our efficient secretary has been abroad, and her touch has been felt.

STATE LIBRARY COMMISSION.

During the last winter, a bill was enacted by the legislative assembly creating a state public library commission, recognizing as one of its members, *ex officio*, the president of the North Dakota Library Association. This state is fortunate in having as representatives in its legislative halls men who appreciate the importance of a library commission. We think it true that ours is one of the very few states, if not the first, in which such a commission law was enacted after the initial introduction of a bill for that purpose. Those who were present at our last meeting heard what was said concerning the enactment of such a law. The advice given by those interested in commission work of other states, was for the introduction of a bill, not that it would pass at first, but as a leaven to raise the understanding of our law makers to a proper apprehension of the necessity and utility of a library commission. Still, all was not as rosy as one might infer from what has been said. We had the flour, the water and the salt, but from these alone bread cannot be made. The psychologic saccaromycetes was necessary. These were furnished, your president issuing a circularette, and others interested contributing information. The leaven was placed in a fertile nidus, and the bill became a law, and the North Dakota Library Association a part of the law.

LIBRARIAN OF COMMISSION.

Inasmuch as the statutes recognize this association by making its president a member of the State Library Commission, it may not be amiss to say that the commission, while created into being several months ago, has grown no fruit that can be seen or plucked. The first and great problem was the selection of a competent person to take charge of the active and practical work, one trained, not only in the science of library classification, but who could bring to us the experience of actual work in some commission of another state; and not only possessing these qualifications, but those rarer gifts of managing, creating and expressing, thereby making efficient the knowledge and experience obtained. After much delay, we have found such a person in Miss Miller, who comes fresh from the library commission of Wisconsin, one of the best and most thorough in the United States, and she is with us today. Our labors may be likened somewhat to the legal phrase "negative pregnant," virtually admitting the greater proposition, yet affirming the lesser, which means as much to the commission as a leader to an ungenerated army. We are now prepared to take up the task, and in the unplanted field sow the seeds which, we trust, will in time bring forth an abundant harvest.

Is he not favored who can create, and see the colors on the canvas blend and mingle, and the forms appear from jotted line and touch of brush. We who are now in this movement surely should find more of interest that can be found when the work is crystalized and the labor is only to make the figures greater. The interest in the child is its potentiality and its unfoldment. The adult mind may dazzle and inspire, but the child mind, if we but reflect, brings an awe for that creative force, that mysterious something which has linked itself to life, and creeps, in chang-

ing figures, from baby prattle to the glories of maturity set in the frame of fruition. Young though we are in the library movement, we have much to expect, and to ou, and those who shall join our ranks, is given the hand to rock the cradle and watch the blossoming, and which shall not be the fortune of those in later years.

CONCLUSION.

The details of the work of the North Dakota Library Association I shall leave to Miss Abbott, our secretary. Let us hope that our small beginning may develop into all we wish, and it can; for we have capable minds, willing hands, and the co-operation of the intelligent ladies who compose the women's clubs of this state. In returning this office to those who have so kindly favored us, we desire to express our appreciation for the honor bestowed; and to extend the wish that this association shall blaze its mile stones with the marks of progress, and that its labors be characterized by solidarity of purpose.

The balance of the afternoon session was taken up with the reading and discussion of the following papers.

THE CHILD AND THE LIBRARY.

BY MISS IDA SCHAEFER.

This is surely the day of the child; the schools and libraries are educating the future citizen. There has never been such conscientious and purposeful work done for children as in the past twenty years; and it is hoped that as the children's library movement is well begun, its influence will spread.

The work of the library begins after the child enters school. Up to that time, the first six years of his life, the rudiments of training are given by the home, and too few realize how much those first few years mean; the child is even then being prepared for life.

Child study should be made a careful study by more parents; women's clubs should take it up in a systematic way, not an occasional meeting only devoted to it. Taking a broad view of the work for the child, we find it necessary to make the parents see wherein they are lacking! but we do not mean all parents, for some children have had splendid training, and how easy to tell which child has been so fortunate.

It would be well to place in the hands of parents books relating to the child, the reading of the child, the influence of the home, the art of story-telling, the pleasure of the fairy tale. How much the story means to the young child—the fairy tale! The child needs it as much as he does food and sunshine, for the childish mind is imaginative and is quite ready to believe in fairies, and it is a pleasure we should not deny them.

All through life it is the home which occupies the highest place, and those children are to be pitied who miss the real home life. The schools and libraries need the co-operation of the home, which is too apt to shirk a duty, which it should be only too glad and willing to assume.

Most children have learned to know books, and browse among them in the home library, and, even though the books may have been few, and we hope they have been good, the library habit is even there formed. In schools the child is taught to read, and to form the reading habit; and the library is to mold and direct that habit.

It is the duty of the library to have only the best books; for books read in childhood and youth make a profound impression, as we all know. Books are so real to children that the real should also be the good.

The child should grow up in a home library, because there we find mingled together grown-up books with the children's books, and for the same reason he should be brought up in a home where old and young are together. In such an atmosphere the child grows stronger and tinges his young thoughts with the maturer thoughts of his elders.

Books must give variety, so that imagination, memory and reflection may be developed; then it is not well to give the child only those books

which have been written solely for his benefit, but give him the classics also, which do so much to arouse the creative ability, just as when the fairy tale was told. In fact it is the fairy tale all through life, for we too must have it, and do have it. It serves the highest purpose. We strive to understand the mysterious; our imagination is thus developed.

When the child comes to the public library, let him select his books, and, if suggestions are needed, give them; but be just as cautious in suggesting to the child as to the grown person, for somehow he resents it just as much. Children are in the habit of bringing you a book to be changed, and asking: "Is this a good book?" Of course books are all good, and it doesn't do to say just yes. Children like to discuss a book, and it means so much more to them if they can talk it over with someone. Some little incident might be mentioned, or some funny thing that happened, and the child goes away happy with his book.

It is in the public library that every child has the opportunity to know and love the best books. Children soon decide for themselves what they like best. There is romance, chivalry, poetry, adventure, biography, useful arts, etc., books which teach the practical child how to make things, those which influence the character, those which inspire to great deeds, molding ideals which will stay with him all through life.

Someone has said: "If we dictate too absolutely, we envelop instead of develop the child's mind, and weaken his power of choice." But there must be intelligent oversight, in order that his reading does not become partial or one-sided.

Every child should have the beginnings of a library. It makes him feel that he has the real something at home, and is able to supplement that with the public library. We shouldn't like to feel compelled to go to the public library for every book we desire to read. We love our books and are willing to read them a great many times. The child will love his just as much.

Starting the child's library involves great care. One should know what books the child likes, and should consult the child's teacher, and the librarian, in regard to best publications, etc., but by all means start a library for the child even though it be small. Subscribe for some magazine in the child's name, and let him have the privilege of being the first one to remove the wrapper. Interest the children in saving their money for a certain book they have wanted; they will appreciate it all the more, having sacrificed something to gain the treasure. We like to go to our own shelves and take down a book. Our books are our friends, and they never disappoint us; they have been tried and found faithful. The home library first, and the public library for that broader knowledge.

Having discussed the child, let us say a few words concerning the children's room.

It should be a bright, clean, cheerful and substantial one, with low chairs and tables of several sizes; low, open shelves supplied with wholesome interesting books, well printed, well illustrated, and attractively bound. Books for children from six to fourteen years old. Begin with the picture book, where the child learns to read ideas, then the fairy tale, where

he loses himself for a time in that other world. Then the myths, poetry, deeds of heroes, biography and science. Avoid badly bound books—keep books well in repair. A torn or soiled book tends to make a child careless, and lose a certain pride in it; and really it takes away from the good influence the book otherwise might have had. Rather buy fewer books and have them in good condition. We would not read a book badly soiled—we wouldn't take it home from the library, if handed to us. Children are just the same, and their rights should be respected.

In regard to rebinding, excepting in the case of books used more or less for reference, we should not have them rebound.

A book attractively and suitably bound puts one into the proper mood to get out of it all the good it contains. Book designing should receive greater attention; it belongs to the whole scheme, as much as the contents. Unconsciously we are made to feel what the book contains and how we are going to like it, by a clever book design.

The walls of the children's room should be made attractive by prints and casts, for these form as potent a factor in the formation of the child's ideals as the books one gives him to read.

The picture bulletins for special occasions, supplemented by lists of books, are very good. The bulletins should represent subjects in which children are interested.

Then as concerns the librarian. She fills a large place in the children's room, as one has well said: "After all, the success of the work depends on the spirit of sympathetic interest and quiet helpfulness which permeates the room and to which the children respond as a flower to the sun, and of which the most elaborate system of bulletins and story hours is but an expression."

Last question, how to get the child to come to the public library. We reach the child, for the most part, through the schools. Although our functions may be different, our aim is the same, and in co-operation with the public school we accomplish the most good.

If possible let the children help in the library such as cutting pictures, pasting, arranging books on the shelves, and in any other way, for children like to help.

The Saturday morning talk on books, and the use of the library, is very good. Help the child in composition work, debates, and in general references, as games, entertainments, etc., so that he learns the practical helpfulness of books.

We were once told always to hand a book to a child. This seems a little thing, but there is a great deal of difference between handing the book and shoving it at him on the desk.

The librarian should talk to women's clubs, teachers and mothers on book selection, the work with the children, and on kindred subjects, not necessarily in a formal way before gatherings, but personally, as the opportunity is presented.

The librarian needs to oversee the child's reading, and give guidance whenever necessary. We know some children read entirely too much; curb it, by arousing other interests. One should always have in

mind how best to prepare the children of today for the duties of today, as is well said: Of all men, perhaps the book lover needs most to be reminded that man's business here is to know for the sake of living, not to live for the sake of knowing."

One of the interesting addresses of the afternoon was that of Miss Mabel G. West, of the Valley City normal school, who discussed Reference Work in the Small Library.

THE RELATION OF THE HIGH SCHOOL TO THE PUBLIC LIBRARY.

(A paper read before the annual meeting of the North Dakota Library Association, November 1, 1907, by Leroy Jackson, of Larimore.)

The fields of activity of the public library and public schools, originally quite remote from each other and well defined, are year by year growing closer together, until now they overlap at several points. Under the present method of teaching, an extensive collection of books are indispensable for the work of the schools. In addition to the books, magazine articles and pictures are now extensively employed. It is no small part of the work of the teacher of high school history, literature, political economy or science, to keep in touch with the latest and best publications in his particular field, and to refer the pupils to such as are suitable for outside study.

On the other hand, we find the library taking upon itself, to a considerable extent, the work of instruction. It is no longer to be considered merely as a place for the storing and circulating of books, it is an active educational force. By means of suggestive courses of reading, by personal help on the part of the librarian in finding and selecting material, by popular lectures from practical men of the world, the library is taking up the work of public instruction. It is certainly most fitting therefore, that representatives of these two great educational factors consider plans whereby they may more effectually join issue in the common cause of popular education.

The subject as assigned is a comprehensive one and involves and is itself involved in some of the gravest social problems of the day. It is the plan of this paper first to enumerate some of the ways in which the public libraries and schools are at present co-operating in their work and then to outline very briefly the form which it seems probable that school and library affiliation will ultimately take. The information made use of in the first part of the paper is obtained from personal experience and observation on the part of the writer and from a somewhat wide correspondence with librarians in different parts of the country.

In most of the cities which have a high school and a public library we find the two institutions working together to a considerable degree. The loaning out of reference books to high school teachers is the most common form of co-operation. In practically all libraries provision is made whereby teachers are allowed to take out books relating to their work and keep them for a considerable period of time, generally as long as they need them, but in some libraries they are restricted to a month or six weeks. As to the number of books which may be so drawn, we find that whenever the rules of the library place a restriction it is made so elastic as to allow each teacher all the books she needs.

In a great many places most of the reference work in history and literature classes is done at the library. At the beginning of the school year the teacher makes out and hands to the librarian a list of the books not already on the library shelves, which her classes will need for reference during the year. This list is turned over to the purchasing committee and as many of these books as the funds will allow are purchased. The teacher is then given a reserve shelf in the library on which all the reference books needed at any one time are placed. With the progress of the work the books are changed by the librarian at the suggestion of the teacher. Very often also a topic comes up unexpectedly on which the teacher is at a loss to find information or is perhaps too busy to undertake the search. The librarian is notified and with his special training in a short time has a list of references posted.

Then, again, even in those places where library and school make no definite plans for co-operation the library is used extensively by the pupils in collecting materials for debates, commencement essays, and special work of all kinds, the librarians generally arranging lists of references for the purpose. In other towns, I find, teachers making use of the newspaper and magazine files in the library for material in the teaching of current events. The magazines are also watched carefully by both librarian and teacher for articles bearing on some phase of high school work. These selections are not only valuable to the teacher but very often are suitable for class reference, awakening enthusiasm and infusing new life into the dry formalism of the text book. Most libraries also subscribe for a few of the best educational journals.

In all of these ways the library is a direct aid to the schools, but indirectly it confers undoubtedly a far greater benefit in building up in the pupils the library habit. The chief work of the schools is not to impart knowledge, but to develop that power in the pupil which will enable him to help himself. The public library has wonderful possibilities as an educational force, but is severely handicapped in its work by the fact that very few know, or care to know, how to use it. The greatest good, then, it seems to me, that comes from school and library co-operation will be found in raising up a class of citizens who will look upon the library as a storehouse of information upon which they can draw at any time. The pupil should be taught to consider his school work in a great part a preliminary training to enable him to later use the public library. In order to make the pupils familiar with the workings and possibilities of the library, many high schools conduct regular classes in the general classification and shelving of books, in the uses of the card index and Poole's index to periodicals.

All this co-operation is a step in the right direction, but it is only a step. The true relationship between the work of the two institutions is much closer. I look upon them as detached fragments of what will ultimately be a comprehensive system of education. The cause of public education is still in its infancy, but it is developing very rapidly. The public schools and the public library are only phases which have assumed a definite form at the present embryonic stage in the growth

of the system. Looking at this in this light, as parts of a greater whole, we shall see the explanation of many of the difficulties and inconsistencies which are so markedly evident in the work of both. We shall see, perhaps, why the school lacks definiteness of aim on the part of both pupils and teachers, and why the library is failing to fulfill its whole mission for the lack of a public who knows how to use it to advantage.

Let us stop and consider for a moment the present conditions. Let us see how the community goes about the intellectual training of its members. At the age of six it takes the child in charge and by means of a curriculum of study the value of which we will not discuss here, aims to put into his hands the intellectual tools of reading, writing, spelling, etc., and to develop in him a certain breadth of culture. In short to prepare him for life. During these years of preparation the pupil is forbidden to engage in any other work and his time is crowded full of severe mental exercise. Hardly a year passes but some new course finds its way into the school curriculum. At the same time the inclination to get the child into directly productive work has a tendency to shorten the period spent on the course. The result is a cramming process and an attempt to force the mental development in a time when the constitution of the child can least afford to stand a strain. The result is impaired health, superficial training and lack of preparation for actual service to society. Now, I can see no good reason why society should require all the intellectual and cultural training which it offers to its members to be done in the first few years of life. Under the present system when a pupil leaves school, either at the end of the course or before, the doors are at once closed and barred against him. He must put all his time at school or none. This may be the simplest way of arranging an educational system, but does it conform to the laws of either reason or psychology? The school years are the formative years of a child's life. Whatever faculties are awakened and developed during that time become a part of the very essence and fiber of his being, never to be lost or forgotten. On the other hand, whatever part of his training is neglected during those years will be found deficient, or at least far below its real possibilities. Is it best then that this period should be monopolized by the purely mental work, to the exclusion of the proper exercise of the other faculties, especially when a large part of the mental work would be more valuable if taken later in life. Industrial training has been clamoring for admission to the school curriculum for some time and of late its claims are becoming generally recognized, but with our already overcrowded courses the introduction of any further work will necessitate a giving way somewhere.

To give adequate training to all faculties at the proper time and maintain the present curriculum is impossible without adding more years to the course. To lengthen the course, when at present pupils are withheld too long from productive labor, is certainly impracticable. It is evident that a more logical and comprehensive educational scheme is going to be necessary. Now, here is where the public library comes to the rescue of the situation. I have intimated before that the school and library were only

detached parts of an evolving educational system. By building up the instruction work of the library and establishing a close affiliation with the high school, or by incorporating the two into one institution and offering a broad range of elective courses, we should have an educational system comprehensive and elastic enough to serve all purposes. A certain amount of the work it would be necessary to require of all, the rest would be made elective. Classes would be in session in the evenings as well as during the day. A boy could take up productive work at an early age and yet not be obliged to sacrifice his chance for a thorough education. He could take his high school course in four, or six, or ten, or twenty years, and in most cases develop a desire for carrying on independent work which is of far greater value than any course. Under this system there would be no abrupt breaks, no mental forcing. The educational curriculum would be endless and there would be no graduation. Our new institution would be more than a school or a library as we understand these terms at present, it would be an intellectual and cultural center for the community. It would be the home of literary and musical clubs, societies for the discussion of political or civic questions. In short, it would aim to provide a complete system of education for all members of society at whatever stage of mental development.

Now the whole of this arrangement is of course only suggestive and necessarily lacking in detail, and to many it may seem visionary and impracticable. It is, however, a glimpse in the direction in which educational affairs appear to be developing and a few moments spent in its consideration at this time I have felt could not be otherwise than profitable.

THE VALUE OF PUBLIC DOCUMENTS IN THE LIBRARY.

BY MRS. ETHEL M'VEETY, LIBRARIAN AGRICULTURAL COLLEGE LIBRARY.

Public documents are becoming known as the most important class of books in existence, and their value is becoming more and more appreciated. The greatest contributions to the world's literature are included in this class, but it is often ignored as useless or unusable, and to many people only brings up the thought of dry statistics and uninteresting facts. Such an impression, however, is not based upon the contents of the government documents. They contain most interesting information upon a variety of subjects in which all classes of readers are interested.

Public documents are of practical value to practical people. History shows that some of our great statesmen have been writers of merit. As one of our librarians who is enthusiastic over documents has said: "It were a misapprehension indeed to brand a book as dull or uninteresting because it contains the stamp of the government printing office."

Public documents represent, in an undigested form, the basis for many of our best printed volumes on economic, social and scientific subjects. They introduce the casual reader to original sources of information, the fountain from which authors, by compilation and development, produce books.

The federal government under the direction of the department of agriculture, and in conjunction with the government experiment stations in the several states, has spent over a hundred million dollars for the purpose of gathering scientific information from original sources. The results of these investigations and this research have been given to the public in the form of bulletins, reports and other documents. This mass of modern information is of great educational value to the rising generation, and forms the foundation for text books that are being compiled for the purpose of introducing this information in an elementary way, at least, into the common schools of the country. It is very gratifying to know that our country distributes its literature so liberally.

The Bureau of Education has issued some of the most important publications in the country. Special studies and bibliographies, together with the history of education in the various states in the union, are to be found in the circulars of information issued by this department. The Bureau of Education issued a special report in 1876, which was really the beginning of the modern library movement. It contains over a thousand pages that are devoted to the history, condition and management of the public libraries of the United States.

In a collection of public documents, such as that found in a depository library, or even in some of our town libraries, "the housekeeper will be able to find reliable information in regard to foods, their cooking, nutritive value and cost. The butcher will find illustrations of the various cuts

of meat. The grocer can here post himself upon food adulterations, and can read analyses of cereal breakfast foods and baking powders which he may wish to recommend to his customers. The physician will be interested in the health reports and studies upon the various epidemic diseases. The farmer will find practical hints upon the cultivation of his crop, with the best method of eradicating weeds and checking the ravages of injurious insects." There is a great demand for bulletins from the agricultural department, and the fact that so many have been reprinted is conclusive proof of their wide circulation. "The farmer will also be interested in good roads and irrigation. Information upon the feeding of the horse can be used by the liveryman, and he should own for himself the publications upon the diseases of the horse. Politicians may wish to inform themselves upon laws, treaties, tariffs, salaries and current political history. The public documents contain much of value to merchants and manufacturers, such as timely articles upon foreign trade relations, and daily, monthly and yearly reports upon the world's commerce and shipping. For the laborer and capitalist alike are many timely and usable reports of the United States Department of Commerce and Labor, including labor laws, the prices of labor and commodities, and information upon strikes and lockouts." The Department of Labor publishes annual and special reports on the subject of wages and capital. In the reports of the Treasury Department we learn of the financial condition of the country, the course of immigration, the character, quantity and value of imports and exports." In these reports the banker can also obtain trustworthy information upon the standing of the various national banks. Miners, prospectors, immigrants and real estate men can all use to advantage the reliable data furnished upon all parts of the United States. The inventor and mechanic know the value of the plans and specifications issued by the patent office, and the patent lawyer also uses the publications of this office. In the published results of government investigations, explorations and surveys is contained much scientific information not elsewhere printed. Such branches of learning as geology, mineralogy, botany, zoology, bacteriology, astronomy, physics and chemistry have all received noteworthy contributions in the form of public documents."

For work with debating teams, the documents will be found invaluable.

Carroll D. Wright has said: "The student of social science depends for his data upon two general sources: First, the result of personal observations, and second, the entries of official transactions and investigations into conditions conducted under governmental authority. The reports and bulletins of the Bureau of American Republics, issued from the state department, give us valuable facts concerning the foreign American countries, their resources, trades and conditions. Besides those just mentioned, there are many other contributions to this one subject, social science. Since 1889 there has been a great demand for the reports of the American Historical Association on account of the bibliography of history and the notices of the work of historical societies throughout the country. In short the student of almost any subject will find something instructive in the government publications, and if they are of value to the individual, they are of value to libraries.

Statistics show an annual increase in the use of public documents in schools and colleges.

It is now some fifteen to twenty-one years since the organized efforts to make the public documents available for use, which have borne fruit in the present methods of listing and distributing them, were set on foot, mainly at the solicitation of the librarians of the country, guided by the public spirit and energy of John G. Ames, in charge of documents in the Interior Department. Before Mr. Ames issued his check list, in 1895, it was impossible to know in how many editions one report had been issued, or to account for omissions which often occur in the Congressional set. A library can do no better than arrange its congressional set in the order of the check list. A careful study of this key to the documents is very necessary to one who expects to make the volumes accessible.

The universal comment of librarians concerning documents is, here we have all their valuable material stowed away and no one can get at it. "One small library solved the problem in the following way: It sorted and transferred all documents to an assembly room and arranged them in series, then discarded many of little use to that library, and 'accessioned, classified, shelf-listed and catalogued' those to be retained."

Oliver Wendell Holmes said that he conceived the formation of indexes, more especially of indexes to periodical literature to be one of the principal tasks worthy of performance at the hands of that and the next generation of scholars. After alluding to the high value set by himself and the more literary of his fellow countrymen on the index to the North American Review, he said: "A great portion of the best writing and reading—literary, scientific, professional and miscellaneous—come to us now, at stated intervals, in paper covers. The writer appears, as it were, in his shirt sleeves. As soon as he has delivered his message, the book binder puts a coat on his back, and he joins the forlorn brotherhood of 'back volumes,' than which, so long as they are unindexed, nothing can be more exasperating. Who wants a lock without a key, a ship without a rudder, a check without a signature, a greenback without a goldback behind it?" Equally exasperating are our cases full of public documents in our libraries, without catalogues and indexes. They take space, and what is more they require some special knowledge of government catalogues and indexes if they are to be made really useful. Any one who has to deal with United States documents should get the check list of public documents, the catalogues and indexes issued by the superintendent of documents, the special lists and indexes issued by the departments in which his patrons are interested, and place them next to the card catalogue with the copy of Poole's index.

A lack of knowledge on the part of the librarian or assistant, excusable as it may be, is one of the chief reasons why public documents are not used more. Therefore, the librarian should familiarize herself with the documents, by carefully looking them over as they come in, and by attention to the printed aids that come out from time to time. She should become thoroughly acquainted with her indexes, and make a practice at first of looking up the subjects that come to mind, other than those asked

for (for this might not give her a sufficient amount of practice in the work), until she is able to use the indexes intelligently for any question that may present itself. This requires some study and actual practice in the use of the documents. "The librarian should take as much pains to find the subject her patron desires as is taken by the shoe dealer or the clothier in serving his customers." In any community, however, the library is called on for information which it does not possess. Especially is this true of the small library where "funds are, as limited as the books." The wide field covered by public documents, combined with the fact that they can usually be obtained gratis, appeal to such librarians with special force. For developing and building up a strong store of usable knowledge, public documents form a library resource not to be neglected. From this source alone can be organized a bureau of information which people will be glad to consult and which they will be glad to support.

If you are sufficiently interested in your library, and in your community to take the time and trouble that would be required to make a complete collection of your town and state documents and file them systematically, that they may always be accessible, there is no one piece of work you could do which would help to preserve local history, and thus further the interests of your people more than this. The staple sources of local history are newspapers and the documents. Newspapers are more generally preserved in libraries than formerly, and if a plea for documents can be made convincing and repeated with sufficient frequency it is to be hoped that libraries at no distant day will realize the importance of collecting local material.

Of course we realize that many libraries will not be particularly interested in "the vexed question" of public documents, but there should be no librarian who will not be glad to learn where and how to obtain either the government publications or the information concerning them.

EVENING SESSION.

The feature of the evening session was an address by Prof. Gottfried E. Hult, of the State University, on "Reading an Obsolescent Art." The address was a literary treat of the highest order and was highly appreciated by all who had the rare privilege of hearing it. Prof. Hult said in part:

If asked to name a thing which conspicuously differentiates our modern life from that of the ancients, one might, it seems to me, without much hesitation, answer: "Books." Bacon, indeed, dates the beginning of the modern era with the invention of the magnetic needle, gunpowder, and books. Not that books were unknown to Grecian, Roman or even Egyptian antiquity, or to the days of chivalry. Solomon, you recall, laments that of the making of books there is no end. But how little could the waxen tablet, or the plate of clay or stone, or even the printed book when chained to the walls of a monastery, serve the people as a whole. It was a truly Copernican event when the book became democratized. One must stand in the rare manuscript department of an old-world library, and there dream oneself back into those bygone ages of the palimpsest, when because of the scarcity of writing material, the noblest works of classical genius were scraped from the vellum with the scalpel that the scribe might satisfy his passion for written expression; or one must push still farther back in imagination to dim ancient days of the papyrus, when the banks of the Nile still supplied the world's chief means of written thought communication--I say, one must have such an historical trance in looking upon the meagre but priceless garner of manuscripts, and awake suddenly to find oneself strayed into the central reading roof, a veritable Coliseum of books and then one may realize in some measure, what a transformation Gutenberg's simple cutting up of the engraved block into the movable types has wrought in the course of these five centuries of time.

I sometimes think that we moderns are forced to pay too great toll to books for the privilege of living. The thought-want and book plenty of the age seem to be in direct ratio. A giant, indeed, is this modern world, but does it not lie groaning beneath a perfect Aetna of books? Never was a time when we needed more earnestly to heed those solemn Biblical words--and they apply not only to our reading, but to all life's manifold activities: "There is that maketh himself rich, yet hath nothing; there is that maketh himself poor, yet hath great riches."

It is a well known fact that publishing houses exist and thrive in our large cities for the purpose of printing absolutely worthless books, especially verse, at the would-be author's own expense; works of which they do not expect to sell a single copy, but which containing, besides verses, the pictures, autographs and curious life sketches of the imbecile candidates for immortality, yet serve their double purpose of gratifying human vanity,

and at the same time enriching the unscrupulous sharpers and confidence men of the book trade.

Need I say that I believe the great chronometer of civilization will continue to run; that books are its hour-hand, periodicals and magazines its minute hand, and that the daily newspapers must nervously tick off the seconds; that all move through the same hidden mainspring, human society; and that all are needed to tell what o'clock it is, as each generation of men lives its brief day of terrestrial life? Need I be more specific, asseverate what a firm believer I am in good fiction, and much recent fiction, too; novelists like Blackmore, James, Mrs. Ward, J. M. Barrie, May Sinclair, and a dozen others equally good? Short story writers like Sarah Orne Jewett, Mary Wilkins Freeman, Alice Brown and a score of others? How can I acknowledge my debt for the mental stimulus, the broadening and deepening of life that I owe to the novelists of the past?

He who runs may not read. There is, I grant, book trotting, which passes for reading, just as there is globe-trotting which passes for travel. But what do the book tourists that race from chapter to chapter as the globe tourists from town to town, or hotel to hotel, learn of the physiognomy of the country through which they pass? Nor does this principle of eliminating haste in reading apply only to the supreme books of all time. It also holds true for the minor books that are worth reading. If a book is worth reading at all it ought to be read deliberately, and if not, re-read in its entirety, at least marked, and reviewed in parts. As well take a Pullman, and expect that while asleep in your berth and the flyer plunges through the darkness, you will come to know what the Minnesota lake district is like, as to read even a novel designed primarily for entertainment without review and frequent pauses for thought. I want to be a freight train, even when I read fiction, not a Twentieth Century Limited. I want to stop even at the little way station chapters and do the necessary switching in order to sidetrack empty cars and get the freighted ones coupled for hauling away. My caboose will simply know nothing of schedule time.

We cannot afford to feed along upon even the best that contemporary literature affords. To do so will cause mental scurvy. It has not the bone-building, marrow-producing qualities of earlier literatures. Whoever has created in himself a taste for that oriental literature of which the Bible and Greek literature are the noblest representatives sometimes feels an utter impatience with and antipathy for the literature of today. The books of the east were, as someone has well said, the result of such "quiet, unhurried ruminating of life." As I read them I seem to be watching a prairie wheat field that has been allowed to ripen fully, and where every breeze blows its grain into the richest draperies of gold.

Modern literature, on the other hand, seems to have been grown in a hot house of mediocrity. It has a lean and hungry look, not because it thinks too much, but because it comes from minds that do not think at all. It lacks poise, proportion and sanity. It lacks that which Kent saw in the countenance of Lear, authority. It lacks, above all, vitality. I once

heard a little child say of her doll from which a limb had accidentally been torn: "See, papa, it bleeds sawdust." Much of modern literature seems to have the same kind of corpuscles in its veins.

Dean Chaucer, if he could not spell, was yet capable of a wit so subtle, so insinuating, that our modern wit is that of a mere punster in comparison. He has that marvelous faculty of indirection which seems today to be a lost art, employing the subtlest suggestion where a modern blurts out his whole mind and then follows it up with an exegesis of his point. Shakespeare is a spiritual specialist. He never flaunts a moral, yet his greatest dramas are like trees after a summer shower, which in the succeeding sunshine stand drenched in a spiritual ecstasy of rain. Milton's epic is often clogged with learning as the sea is clogged with kelp. But upon that kelp of scholarship what tropic sunset effects are wrought! There are passages in Homer and the Greek dramatists so pure, so delicately translucent that it seems as if poetry had died and become a blessed spirit in heaven.

What we read today is the seed of tomorrow's creativeness. What kind of an ancestry for the soul of tomorrow will the newspaper reading generation prove to be! What kind of a mildewed, diseased religion will be the harvest! Read Lincoln's Second Inaugural and see how Hebraism became his mind through intensive study of the Bible. The movement throughout the country for a Biblical Renaissance is not only vastly important religiously, but it is through and through patriotic.

I have urged a retreat to the books which the ages have tested, and not found wanting. I have pointed out the increasing complexity and enlargement of our environment in consequence of books and urged the need of conscious adjustment to the new conditions. We need not be the serfs of necessity. We may be children and heirs to the kingdom.

PROCEEDINGS OF NOVEMBER 2.

At 9 o'clock Saturday morning, November 2, the convention was continued in the auditorium of the public library, with Mr. Stockwell temporarily in the chair.

The paper of the morning was that read by Dr. John M. Gillette of the University. After the reading of which Mr. Stockwell moved that Dr. Gillette's paper be published in full in the papers, especially in the Grand Forks Herald.

DR. GILLETTE'S ADDRESS.

Viewed in relation of social progress and the genuine, the all-round happiness and welfare of the masses of people there is hardly any subject more deserving of close consideration than that of how to get knowledge into circulation, nor is there any task which is much more difficult to get done.

The material advance of civilization in the same intimate way depends on the diffusion of scientific knowledge. A monopoly of science and technical information by the few, be they in universities or elsewhere, cannot produce material advance. Only when the few can impart their valuable facts to the multitude and put them into circulation so that the average man is able to apply them to agriculture, mining, manufacture and business do we see rapid development in material things. Science is worth nothing but to be applied. Information is powerless until it is put into circulation by getting it into the minds of the people. Universalizing of information is necessary to the justification of the existence of specialists.

The diffusion of knowledge is a gigantic and difficult task. We have many agencies, some direct, others indirect, taking part in the work. Knowledge is becoming current faster than ever before. We have a just pride in the growing intelligence of our citizens. Yet, when all is said we have made only a little progress toward putting the valuable scientific facts which have been accumulated into actual currency. There is an amazing congestion of knowledge. Applied knowledge, or the apt of applying science lags away behind the process of discovery and accumulation by specialists and investigators. Laboratories and the great libraries teem with facts and principles which would transform the world in a most rapid and beneficial manner if only the masses of people could get those things and get them in working shape. Our governmental reports are published and sent out by our nation free, yet the most of them decay in the stock rooms at Washington for want of applicants and the rest are neglected on the shelves of our various libraries or are thrown into the fire by individuals who receive them. Yet these government publications contain the best and most varied storehouse of scientific knowledge to be found in the

English language if not in the world. Almost the despair of those who perceive the value of diffused knowledge for moving the world is the utter inefficiency of our present means and methods of circulating information: when compared with the amount of stock and the celerity with which new facts are gained.

Whatever else a library may be and do it cannot avoid holding as its legitimate social function and service the aim of diffusing information. It is the chief agent for gathering up the experience of the human race as found embodied in printed volumes and in holding them for the consultation of present members of society.

Now a socialized library would be one which is completely adjusted to the needs of its constituents and of the community in which it is placed as an informational agency of the kind that holds printed material before the public. Any institution is of course a social affair and one would think that every institution must then necessarily be socialized from the fact that it is already social in nature. But society is a changing affairs and it makes progress by means of bringing first one institution after another up to date. That is it gets so transformed that they are adjusted to the needs of the time. New conditions arise and institutions have to be worked over to meet them. Any institution is socialized when it meets the present needs of society in an entirely helpful manner. Education is at present going through the process of getting adjusted to society. Its subject matter, its aims and its methods are all undergoing change. Whenever our schools of a public nature come to train the youths of the land for the actual work of the world they will be socialized. We may take it then that a library in a given community which completely and effectively fulfills the essential function of an informing agency after its kind is socialized.

First. The library must be an effective depository of the best wisdom and experience of the race up to date in printed form for the exact community in which it is placed. It must gather the best there is along the lines its community is interested in and needs to be interested in view of its active life and callings. If there are lines of life's work which have a larger place in the community than others they should get recognition. If it were a manufacturing community the best books bearing on the line or lines should find a place. If commerce is dominant let that be recognized in choice of books. Many of our libraries so far are mere entertainment agencies. They fill their shelves with fiction and neglect other important considerations. Of course the plea is that fiction is all that is demanded. The greater shame to the intellectual outlook of the librarian in charge. The Springfield, Mass., librarian studied his community, discovered the actual life interests of the place and filled his shelves with the kind of reading the citizens need. The most of our libraries are everything else but democratic in their selection of books. They select for a leisured few and neglect the masses. Fiction is important and fruitful but there are larger interests at stake.

Second. An effective library must take a part in making the knowledge it contains and treasures up available for its patrons. And here we are be-

ginning to get to the militant idea of the library and of the librarian. It is one thing to get printed matter on the shelves. It is quite another thing to get it to going into the minds of living people who need it. There is both an internal and an external phase to making library stocks available. Within the library, books certainly should be made available and get-at-able. But farther than that, the contents of books should be made available. I have felt this a thousand times. Good subject indexes are a positive necessity to render printed matter usable to the average man. The average man is interested in getting enlightened on a certain subject. In a fair library there will be good matter scattered through a score or more of books. No one except the specialist will wade through those volumes to get at the matter they contain. Even the Britannica Encyclopedia and other reference works now subject-index their matter by cross-references, although the subjects are printed in alphabetical order. Our libraries simply are not used and are unusable because they are not subject indexed. My own library is in the same fix, and I am waiting to get it indexed.

More than this, I think a library ought to give some sort of instruction in the community about how to find things. The average man knows as little about a library and its classification as a Bushman knows about a linotype machine. He tries once to find his way, gets lost and scared and never tries again. A little instruction would straighten him out and encourage his patronage. Think of the valuable government documents that make a wilderness to anybody but the expert librarian.

If in every library community a few were given instruction they would help to initiate others. After a while a community technique would be built up and children would grow into the ability as a matter of course.

But the outside view relative to making library matter available really gives the militant aspect of the matter. Here is where the librarian tests his mettle and the vitality of his interest, in getting knowledge lodged in the hearts of the people. Here is where he gets a chance to be a real missionary and propagandist. I firmly believe the librarian has a larger and further duty to the community than to sit at his desk and hand out books to those who come of their own volition. He ought to make converts and take means to reach the public with his wares. He needs to make his wares known and to get the public interested in him. Even a little advertising of delicious morsels is not too heterodox for me. I like the mettle shown by that Springfield librarian when he used not only the schools of the city but the Sunday school and other places as circulating agencies for his books. He was bound to get the reading matters into the hand of people. Moreover he conceived it as a part of his duty or privilege to act as a medium of inspiring the love and habit of reading in his city. He circulated catalogues and leaflets in factories and schools, held special exhibits, sent out thousands of postal cards calling attention of the public to new books. Each week he selected fifty names from the city directory to whom these cards were mailed.

Third. The library may have a training and educative function. I mean strictly a training function. In so far as no institution in the community, whose legitimate business it is to train, is carrying on the work the library is justified in assuming it. It is the otherwise fit agency because its business is informational.

This is easily seen when we remember that the library is largely responsible for the continuation of the educational process among the adults of the community. The schools take care of the children and provide their training. But most people cease cultural processes as soon as they are through with schools. From the very nature of the case the cultural life cannot be completed in the schools during youth. Yet no serious provision is made for the adults in the average community who would like to keep up some intellectual effort of a serious and training nature. Adults could not get admitted to most schools. Anyway, there would be nothing for them. Those adults that would like to go on should have some provision made for them somewhere in the community. I can think of nothing better or loftier a library could do than organize clubs or classes of those who would like to continue their education.

Fourth. The library should be a cultural center and a social center in so far as the community stands in need of the latter service. It is paramountly fitting that the library should be the focus of culture in the neighborhood. It should seek to foster culture by direct and indirect methods as they may be needed. One of the best means of furthering information indirectly would be by furnishing an asylum to outcast literary and scientific clubs or associations of people who depend on books and printed matter to carry on their group interest. I have belonged to culture groups which needed a central meeting place and one near the library. At one time the municipal library had rooms which were not in use. We asked permission to hold our meeting in a library room, to pay for our lights and care of the room. It was denied us because it might set a precedent. And yet at that very time the men of that club were the intellectual leaders of the place and matured in their club deliberations more than one project for the betterment of the city which they got put into effect. But a hide-bound, provincial set of individuals who managed the concern had a small vision and view of the opportunities and duties of the library to the community. In planning some libraries some attention should be given to supplying rooms which might be used by legitimate cultural clubs.

In saying that a library should seek to be a social center it is not in mind to assert that it should enter the miscellaneous field of social entertainments. But there is much legitimate social work in many places which needs to be done which no one does. Communities are often divisive and fragmentary. They need unifying and to be filled with the spirit of co-operation. A community consciousness is needed to get larger projects and undertakings carried out. Particularly many social events connected with library interests could be undertaken. Anything which would further the reading and cultural habit of the neighborhood even to spreads and banquets would be legitimate and would serve to get the knowledge loving people unified and co-operative.

What we want is the consciousness of the great power for good resident in libraries. When we see that they may be made the mightiest agencies for the advancement of mankind of all the means at our disposal today and when we can get the library board and the taxpayers to see that all the rest will come. Our libraries will be larger, better equipped, have more funds for books and for carrying on the work and the librarians will not need to trouble themselves by discussing whether or not work is a profession for they will be honored among all men because their work is of the highest order of fruitfulness.

The business meeting completed the morning session. During this the following business was transacted:

On motion of Mr. Stockwell, seconded by Miss Schlanser, it was voted that the minutes of the first annual meeting be approved as printed in the proceedings of the N. D. E. A. for 1908.

A communication was read conveying the information that the American Library Association would accredit any representatives sent to the A. L. A. meeting by a state or district association.

As nominations for new officers were in order Dr. Batt moved, with a second by Mr. Stockwell, that Mr. Frank J. Thompson be nominated for president of the association for the year 1907-1908. On motion of Dr. Batt, seconded by Mr. Strong, it was voted that all nominations for president be closed and that the secretary cast a ballot for the election of Mr. Thompson.

On motion of Mr. Stockwell, seconded by Dr. Batt, it was voted that Miss Mabel G. West, of Valley City, be elected vice president.

Mr. Strong, seconded by Dr. Batt, moved that Elizabeth Abbott be elected secretary-treasurer of the association. Carried.

On motion of Mr. Stockwell, seconded by Miss Brayton, it was voted that Mr. George Franklin Strong be made a member of the executive committee.

On motion of Miss Schlanser, seconded by Mr. Stockwell, it was voted that Dr. Batt be elected a member of the executive committee.

At this time Mr. Thompson extended to the association an invitation to meet in Fargo in 1908.

On motion of Mr. Stockwell, seconded by Mr. Strong, it was voted that Mr. Thompson's invitation be accepted.

Mr. Strong suggested that a committee be appointed to consider and report at the next meeting of what use the reference libraries of the state can be to the smaller libraries. The suggestion was seconded by Dr. Stearns and carried.

On motion of Dr. Stearns, seconded by Mr. Strong it was voted that a committee be appointed to draw up a memorandum of the purposes of the N. D. L. A., including such general rules as may be necessary for its government. Carried.

After some discussion as to the time of our next meeting it was voted, on motion of Mr. Stockwell, seconded by Dr. Batt, that the matter be left in the hands of the executive committee.

On motion of Mr. Stockwell, seconded by Dr. Batt, it was voted that an invitation be extended to all libraries to become institutional members of the association upon payment of \$1.00 dues. Carried:

Miss Zana K. Miller, of Madison, Wis., made a few suggestions as to how useful the association could be in the state, dwelling especially on traveling libraries of foreign languages.

On motion of Mr. Stockwell, seconded by Mr. Strong, it was voted that a committee of three be appointed to work toward making the North Dakota Library Association of greater helpfulness along the line of foreign traveling libraries. Carried.

At 11:45 a motion for adjournment was made.

The concluding session of the 1907 meeting was called Saturday afternoon in the parlors of Davis Hall at the state university. The following committees were appointed by the president:

Constitution—W. L. Stockwell, Elizabeth Abbott and W. N. Stearns.

Reference Libraries and their relations to small libraries—G. F. Strong, O. G. Libby, Dr. Batt, Miss West, Miss Miller.

Traveling libraries—Elizabeth Abbott, Ida Schaefer, Abby Brayton.

The first paper of the afternoon session was that of Mr. George F. Strong, librarian of the university library, on "Scandinavian Literature at the University of North Dakota."

Mr. W. L. Stockwell addressed the meeting briefly on the Public Library Commission.

Mr. Thompson introduced Dr. Batt as one who had taken a keen interest in state library commissions, to which introduction Dr. Batt responded with a few remarks.

Dr. O. G. Libby of the University, responded to "The North Dakota Historical Library," with the following paper:

The State Historical Society was organized in 1895, but after eight years of quiescence, it was reorganized in 1903 and was made a year later, by statutory provision, the custodian for the state. The present annual state appropriation is \$3,250, from which is paid the curator's salary of \$1,200 and expenses of field work, \$750. This leaves the annual sum of \$1,300, out of which must come the expenses of maintaining and building up the museum and library at the state capitol as well as of editing the biennial report of the society. It is needless to say that with so much work to do and so small a fund supporting, satisfactory results can hardly be achieved. But everything must have a beginning and we have made a fair beginning, as such things go. The historical library at Bismarck was created for a three-fold purpose: First, to preserve the records of the state and of the northwest, in the shape of books, pamphlets, manuscripts, diaries, letters, photographs and pictures, donated or purchased by the society; second, to develop a general reference library in the large field of history and allied subjects such as archaeology, ethnology and politics; third, to collect and preserve for publication all material on the local, state and national life of which we are a part, with the ultimate purpose of writing authoritative histories of the various phases of our growth. With these objects in view, we have developed, for instance, our newspaper collection; we receive two

copies of every issue of the state papers, one for a permanent bound file, and the other for clipping and arrangement of this mass of clippings in a biographical, legal, narrative, political card catalogue for future reference. Besides this, we have a large number of Canadian papers and some from Minnesota. It is not necessary to explain to a meeting of this kind the value of such a collection. Especially in the newly settled districts the weekly paper is and will continue to be about the only complete record of the details of the every day life of the farmer, the ranchman, the missionary, the professional man, the traveler, the merchant. The coming and going of the immigrant, the constant shifting of our population, the ever varying social, educational, political and religious aspects of community life are faithfully mirrored in the columns of the city and county papers.

We have made an effort, too, at establishing a Canadian department of the library. Our past has been linked for centuries with that of Canada, we share river valleys and lakes with her, while a shifting population of Indians, French half-breed buffalo hunters and trappers, Europeans from nearly every state and our own restless land-seekers have moved back and forth over the international boundary line regardless of such an imaginary barrier until it is useless for us to try to keep the bars up, when it comes to books, or history. But if our relations with our sister commonwealth have been intimate in the past, it is no prophecy to say that they are bound to be closer and more vital in the future. Why should not North Dakota, the state most closely connected with Canada, develop a complete Canadian reference library against the time of need and to keep pace with our growing intimacy? If we do not, some other state will, and we should be the first in the field.

Another strong feature of the historical library is the collection of books, pictures, charts and photographs of the Indians of the state and the related tribes in neighboring localities. The display of photos at the city library, only a part of our collection, is a fair illustration of the value of this work. Just now, when so much attention is being paid to such subjects, we cannot wisely neglect our opportunity. Our state is rich in Indian material, we have remnants of five important tribes still living here in a semi-primitive state. Ten years will see their peculiar, half-grown civilization largely disappear unless it is preserved by such means as I have indicated. Our library contains also several maps and charts drawn by Indians, portraying their customs and habits of life as well as giving us glimpses of Indian geography.

In a forthcoming volume of our collections will appear a log book of a Missouri river pilot, kept from 1863-68, and full of the life of that time on the frontier during the civil war. Just recently I received a letter written in 1864 by a gold hunter relative to the narrow escape of his wagon train in an encounter with the Sioux in the bad lands of this state. At the same time I discovered in a secondhand catalogue (and purchased) a book written by the captain who had charge of the soldiers guarding this same wagon train.

Library work in this state is decidedly non-static, our libraries are or can easily be made centers of conservation and collection of our state and local

history, and points of concentration from which may radiate influences which shall make for a continually re-awakened interest in ourselves as a developing state with a wonderful past, full of romance and adventure. Every library is a public institution and should be looked upon as a repository of old books brought from every state in the Union, and almost every land under the sun. Genealogy, local history, missionary labor, early immigration and travel are among the fields in which such miscellany will be found. Much of it may prove worthless, but a large percentage will be of high value. a little of it well-nigh priceless. One instance I can cite as an example of this last class, there was brought to me several years ago four lithographs of the battles of Lexington and Concord, printed by the artist himself in 1832. They were the second copies made, and are to be found only rarely in the larger eastern collections. They had drifted west as a family heirloom and turned up in the brand new state of North Dakota. Anyone can make such a find as this if he is only patient enough with the things that have no value that are their invariable accompaniment. For our part, the historical library can promise that if the various libraries in the state will gather the miscellany of local donors we will gladly pay express or mail charges on it all and take our chances. By state law we publish a biennial report called Historical Collections, 500 bound copies and 1,000 unbound. Copies of this report go to all state officers, members of the legislature and members in every part of the state. This publication, with the state documents, is sent to our exchanges, and from the various libraries and societies on our exchange list we receive a great variety of valuable books and pamphlets. We have perhaps less than 1,000 bound volumes in the historical library, considerably more than that number of pamphlets, and the newspapers already referred to. A considerable part of it is catalogued by the efficient university cataloguer, Miss Abby Brayton. It is not a great library, except in its aims and its possibilities, but in every respect it is a library well abreast of the general progress in professional lines in this state.

The usefulness of this library is considerably circumscribed by its relative inaccessibility. On the other hand, the annual or biennial report, the Collections, will act as an intermediary between the library and its readers at a distance, presenting in compact form the best of the treasures here collected for safe keeping.

As to the ways and means by which the collection can be made available to the public and the libraries, most of the details must be worked out in the future. As far as our published material goes, we can furnish reprints and separates to any library that can use them to advantage. Plates of the portraits, typical of the tribes represented in the exhibit at the city library might easily be prepared for just such use. Another fruitful field of increasing value may be found in the stories from the Indian mythology, which are being accumulated in manuscript at our office in Bismarck. This summer I learned many new and fascinating tales illustrating the old hunting and tribal life of these people. At the meeting of the Southeastern Teachers' association I shall tell some of them, with a view of interesting our educators in this local wealth of our own. To librarians, who are teachers in the larger sense for the whole public, this will appeal, I am sure, with

special force. These stories make good telling; I have tried them on grown people as well as on children. Why would they not be first-rate material for reading also? Since the state publishes them, they are for the people of the state, and they can reach the reading only through the libraries. I must confess I view the prospect optimistically; we have a state literature and a state history awaiting only a printer and distributor. The printer is found and a distributor can be found, I am sure. As a North Dakotan, I can be very proud of what seems about to be realized by cordial, sympathetic co-operation together in a truly patriotic and worthy undertaking.

In the absence of Mr. H. C. Fish, of Bismarck, Dr. Wallace N. Stearns, of Wesley College, read the paper prepared by Mr. Fish on "Legislative Reference Library."

The United States government affects us here in North Dakota very little. We run up against United States laws and United States decisions seldom. We are reminded that the United States government lives when the customs house office inspects us at Pembina, when the postoffice inspectors visit our city and demand certain things, or when we vote at a presidential election, but otherwise we are apparently little governed by Washington. It is the state law that most concerns us. The state law registers our birth, directs our schooling, gives us the right to vote, divides the estate of a deceased parent, licenses our trade, protects our lives, marries us, divorces us, institutes civil and criminal action against us, and in the end, buries us. The laws of a city derive their powers from the state, so you can see we are swallowed up in a sea of state law, and yet we, as law-abiding citizens, are really unconscious of the ever present law of North Dakota. Since the state law exercises such an important part in our law-making, is it not but right that these laws should be so clear and concise that neither supreme court nor lawyers could change them one iota. So in order that legislation should be brought to a higher plane, in order that the legislator may understand the intricate economic problems which enter into our law today, and in order that the law once set forth upon our statute books should be a law of the Medes and Persians, the Legislative Reference Library was instituted. Dr. Chas. McCarthy, of Madison, Wis., builded greater than anyone conceived of when he started this department in 1901.

The reference library is the busy officials bureau of information. It is where the legislator can find *multum in parvo*. We may say that the Legislative Reference Library is to the legislator what the law library is to the lawyer. Here is where a group of men and women trained in economics and political science foreknow the thoughts of the legislator and is ready to serve him on demand. The bureau, to be of service to the whole legislature, must be absolutely non-political and non-partisan. For as soon as politics enter into this bureau faith flees and leaves a few withered remnants of a life that could have been of great service. Just as soon as one party suspects there is a leaning to the other side, then the material at hand will even be suspected of being tampered with.

These conditions are familiar to all of us. Mr. X comes to the legislature. He is an honest man, a man of ability and good common sense, and

well liked by his constituents. Up to this time he has lived an uneventful life in a small town. At once he changes his surroundings. All is hustle and bustle. Here a man wants some slight favor, another wants an office for a deserving relation, and still another man wants a political debt paid off. He is put on a number of committees, Mr. X cannot move except to feel the strenuousness of his life. He is far away from his hard-headed advisors and his sympathetic friends. His constituents want a bill introduced for draining an immense tract of land. He must in some way get this bill drawn up so that there is in it nothing for the courts to declare unconstitutional or in which the lawyers may find loopholes of egress. He goes to the code and is confronted by thousands of bills on thousands of subjects. It makes his head swim to encounter so many complex questions which present themselves in his bill. Committee meetings keep him busy, and at last he goes to one of the brilliant lawyers, who are willing to help him in any way. Sometimes they are there for self-interest, and Mr. X becomes a legitimate prey. They gradually get hold of him, and often his bill amounts to very little.

This situation confronts our rancher, small country attorney, successful business man and pushes him into a life where he has to grasp at once, entirely unprepared, the problems of making law which is to represent all sides of our industrial life. It was almost in the lifetime of our oldest citizen that legislation was simple and could be readily dealt with, but now the railroad, telegraph, telephone, insurance, great corporations and a vast complexity of modern inventions, make it impossible for a legislator to act intelligently upon half the subjects which come up in a session.

Since there are so many subjects and so many phases of each subject to consider in law making, the Legislative Reference Library was established to help the legislator. It is the architect for law building. It has the plans and specifications worked out in detail. The work is divided into three main divisions. (1) The comparative, which includes the gathering of laws and cases from all over the United States and Canada upon legislative subjects; (2) the critical which has as a special duty the collection of data upon the workings of these laws, all of which have been indexed and listed; (3) the constructive, for the purpose of scientifically drafting legislation with the foregoing evidence at hand for reference. This library becomes a specialist's upon quasi political-economic subjects. The gathering together of these laws from all over the world is an important part of the work, and yet the second main division is of far more vital interest.

The critical study of the working of the law reaches the real life of that law. For instance, upon the face of a New York law it may seem all right. It may appear to us as a strong, clear, concise law, and yet, is the law of any use to the state? Is there any flaw in the wording? Is the power to enforce that law put in the proper office? Is the law needed, or can the question be settled in some other way? Is not the law of Illinois upon the same subject better? And a thousand other questions are asked in the critical study of these laws. One-third of the material which they hand over to the legislator are clippings from newspapers, magazines and books. These are important in giving decisions as to the workings of the laws, their strength

and weakness, and, generally when taken from our standard magazines, they contain expert opinions concerning these laws. Briefly considering the third main division, we can see that this requires during the session trained lawyers to scientifically draft the bills. In doing this they have the critical data at hand, and although they draft the bill for the members of the session and put into it his thoughts and his whole idea, yet they are careful to see whether the bill is legally correct. This third division saves the legislator a great deal of worry and expense. He simply comes to the reference library, gives his ideas, and the bill is drawn up. Of course, it would be very easy for the library to work for its own interest, and this again is why it is so vital that all members of the library should be non-political and non-partisan. Full faith and credit is the watchword.

The Legislative Reference Library branches out into broader fields and chiefly for advertising their departments, and also helping out the coming generation of legislators there is a debating society division in the library. This phase of the work sends out material for the debating societies and helps them select subjects for their debates. Then, too, it helps the other state officers in compiling statistics and gathering data from other states.

The question arises right here, what can we expect from such a department? First, we may say it will make the laws better and put the laws upon a more scientific basis. We will be more careful when a law is taken from another state, and know whether it has been modified or amended dozens of times. Secondly, we find that the new states have overloaded their constitutions for the purpose of protecting themselves against the caprice of the legislators. They have not the trust in the legislator that they should have, but when the people of a state find out that the legislators are careful and that there is a law-making department in our state government, which is scientifically carried on, then the legislature will have the unlimited confidence of the people. Thirdly, better law will check the centralization of federal power. We seem to be tending toward centralization along all lines, and especially at this time is the great hue and cry for and against great federal control. Laws made better and so clear and concise that they will withstand supreme court decisions, will tend to place more control in the hands of the state.

In the fourth place, we find that the courts of the state are called upon very often to render decisions upon the constitutionality of laws made in the preceding session. The courts have enough work to do apart from this, and they often really defeat the real purpose of the court, when such extra legal matter of the kind is placed on the docket. Prevention is better than cure. Lastly, we may say that the Legislative Reference Library will tend toward stopping the evils of lobbying. There is good, sincere lobbying, which is entirely legitimate. This library will put in the hands of the legislator facts and figures from which he can defend his standpoint, and at last know the whole situation. Many times a lobbyist will go before a committee and put forth his side of the question, showing each step by correct statements and well known figures. He has the committee at a disadvantage, for he may ask it to point out a flaw in his argument or a misstatement. But, with no facts before them, what can they do? What could

you do? One of the duties of the library is to give them facts and figures also, and then they can argue the question from both standpoints. This would tend to make the committee more independent and give them surer grounds upon which to base their report.

A new state like this is in just the right condition for such a library. The library can easily gather together and systematize the laws of the past years, and can, with the growing population, keep abreast of the great industrial movements which gradually come in with the greater development of the county. The Supreme Court library at hand, the Historical library and the educational library will give the librarian of the reference department a big field from which to choose and work with. Some of the books cannot be removed from the libraries, yet they can be readily used when they are wanted. The harvest of work along this line in North Dakota is great, and the laborers are few. Persistently keeping at the uncatalogued material and working at the new will in the end give as delightful a plan and as extensive a machine as we find in the home of the Legislative Reference Library at Madison, Wis.

Then followed the round table discussions led by Miss Miller and Elizabeth Abbott, during which the following topics were taken up: Labels, proportion of appropriation spent on children's books, binding, seven-day books, duplicates, circulation of magazines, and periodical subscription list.

On motion of Dr. Batt, seconded by Miss Miller, a vote of thanks was extended to Miss Abbott, Mr. Strong and others of Grand Forks, who had extended courtesies to the visiting delegates.

On motion of Miss Schlanser, seconded by Dr. Batt, the second annual meeting of the North Dakota Library Association was brought to a close.

The latter part of the afternoon was occupied with an informal reception tendered by the University of North Dakota.

ELIZABETH ABBOTT,
Secretary.

PROCEEDINGS
OF THE
THIRD ANNUAL MEETING
OF THE
NORTH DAKOTA LIBRARY ASSOCIATION,
HELD AT FARGO, NOVEMBER 7 AND 8, 1908. •

The third annual meeting of the North Dakota Library Association was called to order by President Thompson, Friday afternoon, November 6, at 2:30 in the auditorium of the Public Library. Twenty in attendance.

Greeting and words of welcome were made by Mr. Thompson.

The following paper was read by Mr. Charles Compton, librarian of the University Library.

I want to consider first some of the helps to be used in a wise selection of books for a library and then I shall take up the question of how and where to buy books economically.

There are several literary journals which are of more or less help in the selection of current books. Among these may be mentioned, *The Bookman*, *The Dial*, *New York Times*, *Saturday Review*, *Nation*, *Outlook*, and for English books, the *Academy*, *The Athenaeum*, *The Saturday Review* and *The Spectator*. Probably none of us can afford all, but on the other hand even the smallest library cannot afford to be without at least one of these. Of them all perhaps the *Dial* serves the purpose best for the small library which can take but one. It is semi-monthly, costs only \$2.00 a year, and one can depend on its reviews as trustworthy.

The *New York Times*, *Saturday Review*, has the one advantage of listing new books promptly, but its reviews are, unfortunately, not always to be depended upon.

The *Bookman* serves a purpose which none of the others do. It tells one something of modern day authors themselves, pictures them in their homes, sitting in the parlor or picking flowers in the garden; it gives, if you please, the literary gossip of the day. This kind of a journal has its legitimate place and although the reviews in the *Bookman* can hardly be called critical, still they do give one a fairly good idea of the books considered.

The reviews in the *Outlook* are not up to the standard which one would expect from the quality of its contents as a whole. Perhaps the reason for this is that they are a free contribution from people who write for the joy of the writing. At best they are amateurish.

None of these journals compare with the *Nation* in critical ability. In fact the *Nation* is apt to be over critical but at least one may know that when the *Nation* praises a book, it is at any rate worthy of consideration. Of course every library wants the *Nation* for its review of events

as well as its review of books. Such is its fearless, sane attitude and such is its delightfully keen style.

Of the English journals I would choose either the *Saturday Review* or the *Spectator*. They are of much the same character as the *Nation* and although they are (at least to our point of view), apt to be overly severe upon American productions, still such criticism is not without value.

In a public library only a limited amount of trade bibliography is necessary. The *United States Catalog*, the *Cumulative Book Index* or the *Publisher's Weekly*, the former having the advantage of giving L. C. numbers, and *Book Review Digest*, are sufficient. The latter is most useful and saves a great deal of time in looking up reviews. If one has the *English Catalogue*, often a considerable saving can be made by importation. This probably is not worth while except for the larger of our North Dakota libraries.

The best aid to the selection of current books, as it seems to me, is A. L. A. Book-list. This is issued ten numbers a year, costs only \$2.00. From 50 to 100 books are listed in each number, the annotations are short but descriptive and critical, and one can feel perfectly safe in buying what the Book-list recommends.

The New York state library issues annually a list known as best books of the year. This comprises about 250 books. It is much on a par with the A. L. A. Book-list, but perhaps the notes are slightly more critical. It costs but ten cents a number.

The helps which I shall now mention I have no doubt you are all familiar with. First there is the A. L. A. catalog of 8,000 books. This is now four year old, many of the editions recommended there are out of print, also many of the technical books are out of date, and still I suppose it is yet the one most useful tool for the librarian. *Lepoldt and Iles* list of books for girls and women and their clubs is excellent. It includes about 2,000 books, the annotations are longer than in the A. L. A. catalog. The title, by the way, is a misnomer, the books are equally fitting for men to read. It costs \$1.00.

Of short lists many might be mentioned. Of these the list of 1,000 best novels gotten out by the Newark, New Jersey, public library, is one of the best.

Baker's *Descriptive Guide to best fiction*, published in 1903, although it cannot always be relied upon, still it is the most comprehensive of anything along that line.

Also Baker's *Historical Fiction*, published last year, will be found useful in other ways besides book selection. The latest venture of the H. W. Wilson Co., in co-operative cataloging is worthy of notice. The fiction catalog of 2,000 volumes is already out. The selection is based upon the lists which I have just mentioned. For a full outline of the plan, I would refer you to the *Library Journal* for June, 1908. The same company is planning to bring out a juvenile catalog of about 3,000 volumes early in 1909. These are intended to serve the smaller library instead of a card catalog of fiction and juveniles, but they will certainly prove of value in book selection. The cost of the fiction catalog is 25 cents.

In the selection of children's books too much care cannot be taken. Fortunately there are several good lists. The best as it seems to me, is the catalogue of books for the first eight grades published last year by the Carnegie library of Pittsburg. The books are listed in eight different groups, that is, one for each of the eight years, and so of course the same books may be listed several times.

The entries are annotated and there is an author and title index in the back. Hewin's books for boys and girls, published by the A. L. A., is a short list and any public library would do well to order all of the books included here, in the editions recommended. Of other lists may be mentioned Newark public library books for boys and girls, Brooklyn public library books for boys and girls, Oregon library commission list of books for school libraries. All of these lists are annotated.

In buying children's books it is not necessary to buy the late books. Adults will have something new whether or no, as Demosthenes said in Athen's palmy days, every morning the popular cry is, "Is there anything new, is there anything new?" But fortunately children do not care whether a book is hot from the press or not, if the story is the right kind.

I believe thoroughly in buying all books, especially children's books, in good editions. Books printed in clear type, attractively bound, fittingly illustrated, have a certain influence which adds to the pleasure of reading.

In considering the more practical business side, the actual buying of books, I have myself followed the policy of buying the bulk from one general agent. Get an agent you can trust, and then don't worry for fear he is beating you.

If the local dealer will give you 33 1-3 off on fiction and about the same discount on non net books, I rather think it pays to deal with him. However, local dealers often have such meager knowledge of the book trade that it is more satisfactory to deal with a firm in a large city, where one can depend upon intelligent service. Arrangements can readily be made to have all books sent on approval with the privilege of returning within a few weeks. There are usually several members on the library board, or the librarian has friends who will be only too glad to read new books and pass judgment upon them. When at all doubtful whether a certain book should be added to the library, I believe it pays to have the opinion of several persons, who have read it. Of course they will differ in their opinions, but that will help you the more to decide.

The bulk of the books as I have said, should be bought from one agent, but there are several ways in which one can save considerable money on purchases. One can buy through auction catalogues. The C. F. Libbie Co., of Boston, and the Anderson Auction Co., of New York, will send their catalogues on request. It is safe to bid one-third to one-half of the original price.

It takes time to check these catalogues and it is hard for the busy librarian to find time for such things with the rush of other work. I heard a prominent New York librarian recommend that one put a second catalogue under her arm when going out shopping, and she said that when waiting for your change, or waiting for a street car the catalogue could

be perused and checked and thus many a dollar would be saved to the library.

I really never have tried this scheme and so would hardly be justified in recommending it, but perhaps after Grand Forks has installed its new metropolitan street car system I shall try it and I can report upon its practicability at our next annual meeting.

But I do believe it pays to check these auction catalogues, especially if one keeps a list of wants, that is books most needed by the library. Then there are the clearance sales. Baker & Taylor, Little, Brown and Scribner have these quite regularly twice a year, usually in February and July. One can often buy books at that time at a mere fraction of the original price.

From catalogues of second hand dealers one can usually do well. A list of second hand dealers is given in the back part of the Library Journal. They will send their catalogues upon request. I think that a librarian needs however to be on her guard lest she buy books simply because they are cheap. When I was in public library work, I dealt with the Booklovers' Library of Philadelphia, and I fear that at times I bought books which were not needed in the library for the sole reason that they could be bought at 15 cents each.

The all persuasive book agent who would fain sell you a ninety-nine volume set of some compilation of all the world's literature or some other comprehensive work of lasting value, has probably called on you all more than once. Yes, he would sell it to you at \$135, though the original price was \$250, and he would make you believe that your library needs this monumental work, which he is presenting, more than you need your salary, to use a fitting simile. He can make you see just how imposing those ninety-nine volumes will look, lined up against the wall all ready for battle. It matters not if your total book fund for the year is but \$150, he only wants \$135 anyway. Well, I would not be too hard on the book agent. I would not put up a sign, "No agents allowed," as I heard one librarian advise, I would not show him the door. I like to look at new books and one can learn a lot from the book agent about books, and then, too, I like to hear an accomplished agent spiel, for he is an artist in his line. But on the other hand no library can afford to buy of an agent. He must have a commission and you pay him that. Moreover, most libraries do not need the large sets which agents offer. And, too, there is no subscription book published but what can be bought by watching one's chance for one-half to two-thirds of the original price.

Within the last week I have seen Warner's Library of the World's Best Literature, original price, \$85, advertised for \$40. Brewer's World's Best Orations, 10 volumes, three-quarters Morocco, original price \$50, for \$15.50. New International Encyclopaedia for \$60. Harpers Cyclopaedia of American History, \$10.

For reductions like these, one can well afford to wait, even if it is hard to resist the arguments of the agent and you feel as if you would be more than willing to buy just to get rid of him.

Now, having disposed with the book agent, I'll add my little preachment, and therewith I shall be through. The questions of book selection and book buying are two of the most important which confronts the librarian. Drawing my simile from house-keeping, of which, of course, I have a right to speak with authority, every good housewife will exercise considerable judgment as to the kind of victuals she feeds her spouse, she'll vary the bill of fare and she will draw upon her store of esthetic to have the eatables attractive and appetizing, with a sprig of this and a sprig of that, and withal she will be economical in her purchases and in the way she makes use of the left overs. Of course, if the good woman does all these things that does not necessarily mean a happy home. And so the librarian may use all the best aids in the selection of books and she may have her eyes ever so wide open for good bargains, and she may be able to resist all the charms of the book agent, still that won't mean necessarily that she is a good librarian or that her library is serving its purpose in the community. But on the other hand, wise selection and economical book-buying are an absolute requisite to the proper administration of a library. As the housewife knows how in her culinary productions to tempt the eye as well as please the palate, so the librarian will please the public with the attractiveness of the binding of the book, with its well printed page, with its beautiful illustrations, and the contents will in turn satisfy his mind. And she will also gain the confidence of her library board by being business like in her purchases and by being economical without being a bargain hunter.

A discussion of book binding and book repairing was held by Miss Clara H. Kunst, librarian of the Minot public library, and Mr. Harry O. Williams, of the Waldorf Bindery Co., of St. Paul. Miss Kunst, from the standpoint of the librarian, Mr. Williams from that of the binder. Great interest was shown in this subject by the general discussion which followed.

Mr. Nestos, secretary of the board of directors of the Minot public library, was called upon to make a few remarks on the relation of the trustee to the library. Mr. Nestos responded very informally.

Mrs. H. L. Bolley read an excellent paper on "The Women's Club and the Library: How Can They Help Each Other?" Followed by a paper by Mr. Max Batt, on "The College Library and the State." This paper is as follows:

What shall be the relation of the college library to the state, meaning thereby, of course, a college supported by state funds? Or, in other words, what can and should the college library do to further and advance the higher interests of the state? This is the question I shall endeavor to answer to the best of my ability and as briefly as possible.

We are confronted at once with two large classes of people whom the college library can assist in one way or another: First, those who are connected with the schools of the state, be it in the capacity of teachers or pupils, and secondly, the public at large. The latter, to be sure, come naturally within the purview of the state library commission, but as we shall see later, much can be done for them by the college library, especially

in a new state where said commission, because of the limited funds at its disposal, must concentrate its energies in the performance of one or two of its most essential functions.

What, then, is the nature of the assistance that the college library can proffer to the schools of the state? It may be in at least two ways: First, by preparing teachers for the schools, who, in addition to their special line or lines of work, have had some training in library science, and secondly, by co-operating with school libraries. Let us see what state colleges are doing in the way of offering courses in library science.

I have examined a large number of catalogues of these institutions for the purpose of ascertaining what courses are offered, and which ones are required for graduation. In this inquiry I have not included universities, nor such state colleges as are an integral part of the university, and for this reason: State universities are often located in or near the capital of their respective states, and hence co-operate or even affiliate with their library commissions, whose function it is to conduct library schools. Therefore the courses offered, though primarily intended for prospective librarians, are open to all students who are qualified to register for them. But state colleges do not aim to train librarians; they merely wish to equip their graduates, especially those who are to enter the teaching profession, with the tools, as it were, of library science, so that they will be prepared to organize and manage small libraries properly, thus pursuing a policy much after the fashion of progressive normal schools.

And now, what has my study of the aforementioned catalogues revealed? Out of the total number examined, eight offer class work in library science, namely, the state colleges of Colorado, Iowa, Kansas, Maine, New Mexico, Oregon, South Dakota and Wyoming. In one of them, Iowa, the subject is required for graduation in several of its courses, while in the other institutions mentioned, it is optional. The length of the course in library sciences varies, ranging from two or three hours per term in Wyoming to a full semester in Iowa. Special emphasis is, of course, laid on scientific and agricultural literature and bibliography, so that students taking this work are better fitted for positions in progressive high schools, for example, than those who have had no library training, or training only along general lines.

Now a word about the co-operation of college and school library. How can this be carried on most effectively? Once the school library knows the college stands ready to give advice and counsel, it will refer the problems that arise in connection with library administration to the college library authorities. More than this. It is entirely plausible that an inter-library loan system may be inaugurated, such as exists now among the larger institutions. Thus the usefulness of college library books now accessible to the high school students, may be doubled and tripled. In some states, to be sure, the public library commission lends a helping hand to pupils, but does not such work belong more properly to the college library?

I come now to the second class of people, to whom the college library sustains, or should sustain, a certain relation, I mean the citizens and tax-

payers of the state who, albeit indirectly, contribute toward the maintenance of said library. How can their higher interests be promoted and what assistance can they properly expect? I can do no better than remind you of the stimulating and suggestive article by Dean L. H. Bailey of the New York State College of Agriculture, Cornell University, in the October number of the Library Journal, entitled "Library Work for Rural Communities." I wish I had the time to read to you his address in its entirety, as it was delivered before the New York Library Association last September, but I must content myself with quoting but one paragraph:

"Another mode of developing the reading habit is by means of reading courses and reading clubs, which are now beginning to be organized in the agricultural colleges. These are likely to have great influence in rural communities because, (1) they are directly related to the life of the people, and (2) because they are dynamic or have an active follow-up system. The reading course enterprise for farmers and farmers' wives has gained greater headway in New York state than elsewhere."

And he sums up his splendid discussion in these words: "If libraries and librarians are to energize the people and to re-direct the currents of civilization, they must inspire the reading habit, direct it, and then satisfy it. It is not enough to satisfy the demands of readers; we must do constructive work. I look upon all library effort in rural communities as a part of the general education and welfare work in which all persons are interested who are looking to the evolution of institutions and the betterment of their fellows."

Whether or not North Dakota should emulate New York in its activity, as suggested, it is not easy to say at the present time, for our population is small and widely scattered. We should realize, however, that there ought to be a closer relation between the college library and the state, and prepare for the day when the two will be drawn nearer to each other in the interest of the higher life of the citizen in this great commonwealth.

Mr. Nestos suggested that the library laws of the state be changed especially regarding the position of librarian. And on motion of Mr. Nestos, seconded by Mrs. Burke, it was voted that a committee of three (3) be appointed by the chair to co-operate with the Legislative Reference Librarian, Mr. Sveinbjorn Johnson, in amending the library laws.

On motion of Dr. Batt, seconded by Mr. Nestos, the afternoon meeting stood adjourned.

Friday evening a reception was tendered to the public and visiting librarians by the board of directors of the library, affording all an opportunity to inspect the library building.

Saturday morning, at 9 o'clock the convention was continued by a paper on "Methods of Securing Better Reading," read by Miss Ida Schaefer, librarian of the Fargo public library. This paper brought out an unusual amount of discussion and the suggestion from Dr. Batt, that it would be well for the librarian to get prominent people of her locality to review new books and comment upon them, the same to be published under the reviewer's signature in the local papers.

METHODS OF SECURING BETTER READING.

"Literature is the record of human experience, and we can scarcely conceive of the development of the finished product without discriminating and continuous reading of that record. It is this discriminating reading that our public libraries are designed to promote."

People read to be informed, to be educated, for entertainment and for inspiration. Those people who read merely for entertainment make up the large class of our readers, and these confine themselves to fiction almost entirely. But we know that good fiction tends to a general culture, which will warrant the reading of it by as many people as possible. Someone has said that "good fiction cultivates in broadening the sympathies, giving a larger tolerance, a kindlier humanity, a more intelligent helpfulness in affording the rest that is in itself an equipment for work, and that distraction that may save from influence to evil."

By good fiction, we mean that which has stood the test of time. And we think, in regard to much of the late popular fiction, it would be wise, for the small library at any rate, to let time place its test on it. We cannot afford to buy books which soon end their existence, and which possibly are considered harmless, but a book which does no good is a waste of time. However, we do not condemn all late fiction. If our standard novels were gotten up in the same pleasing style that our late novels are, we may depend on it, they would be picked up just as readily.

Not to discourage the natural desire to read for entertainment, yet a special effort should be made to develop in these same people a habit of reading such things as will give them a practical gain; also, books which will benefit the reader in his special line of work.

It is the duty of the public library to make a careful study of the community which it is to serve, so as to prove itself helpful as well as instructive. Local and historical associations should be considered, the geography and topography of the town and surrounding country, and the industries peculiar to the locality. The librarian should come in contact with each person, in his trade, his business and his profession, and, of course, the schools and the clubs. The intellectual wants of the people should be supplied just as far as the library funds will allow—books which you know they will read, or possibly a chance of their reading. When you have done this, and supplied their wants, you have at the same time secured the public support of your library.

A FEW OF THE METHODS WHICH LIBRARIES EMPLOY IN REACHING THE PUBLIC.

Advertising.—That consists in letting the people know of our wares, mainly through the local papers, having a place in the paper reserved for us, say in the Saturday issue, and have some library news there each week. People will soon learn to look for these items. At one time have a list of new books added, giving brief annotations wherever necessary. Very often the author and title mean nothing at all to the person who does not know either, whereas if he knew what the book was about, it might happen to be the very book wanted. Titles very seldom convey what the book contains. Do not make the lists too long—a few books each

time—long lists are very seldom read through by the casual reader especially, and he is the one we want to reach.

Prepare special lists which will appeal to the people at the particular time of publication, or any group of books on one subject in which the public is interested, current events, etc. Advertising, taken in a broad sense, is any means employed to arouse the public to the fact that here is something which it may want.

Make lists of books for everything for which you have time. Most people want something definite to follow out, it seems to urge them on. Have lists for the different trades, occupations and professions; co-operate with the heads of departments seeking suggestions. They know what books their co-workers need, and what they will read, much better than the librarian does. And in this way we also gain the personal acquaintance which is essential for best results.

Current events are always of interest, and in this case, lists of all available material should be placed on the bulletin board, and the books grouped by themselves for your people to select from.

It is well to have lists, such as a few of the best books, best stories to read aloud; and have printed slips, and these may be placed in each book as issued.

There is much in suggestion, and it may be possible to stimulate curiosity sufficiently to make some good a result.

Where the library is sufficiently large, lists of books should be prepared for the different grades in the school, and the books sent to each grade, yet with the small library this is only a dream. There should be more hearty co-operation between the teachers and the librarian than there is. The school work can be supplemented by means of books, pictures and suggestions, but it seems difficult to interest teachers in this important phase of our work. If the teachers would submit their topics and outlines to the librarian before hand, a special list of books relating to the several subjects of available materials in the library, could be gotten up, and the books placed on a reserve shelf for use in the library. As it is, we have possibly one copy of a book desired by fifteen or twenty students. The first student who comes to the library avails himself of that copy, thereby disappointing all the other students. We believe if the library does good work with the children in the schools, much has been gained so far as the public is concerned. We reach most of the parents through the children, and we can reach the children through the schools, if the teachers will help us.

In regard to book talks, there are always those in a town who can be prevailed upon to give talks in the library, or elsewhere, on books, people who would be glad to do it. It is more often a case of the librarian's getting busy and securing those people. An occasional good lecture on general literature will mean a great deal.

And in this connection, there is also the matter of exhibits, art exhibits, and the library is the best place for these, even if not secured through the library. An exhibition of books in the library is carried out successfully by many libraries, especially at Christmas time in regard to

children's books. These are placed on a table, and mothers and teachers are invited to come, and the librarian is ready to answer all questions. A great many parents would gladly buy books for Christmas presents, but do not know the best to buy. The same would be true in a collection of adult books. This would be of great service to many.

Bulletins.—Even the small library can afford to get out a modest little bulletin, say every two or three months, giving the list of books added during that time, arranged by classes, and giving brief annotations. The small library can make use of the bulletins of larger libraries, which appear each month, in making up lists and annotations. These bulletins can be used for reference by the reader, and can be distributed in homes where possibly a library book has never been seen. It would not be much of an extra expense to mail them at different times to each home in the city.

A great many complaints are made in regard to too much red tape about getting books. We believe that if a person signs his name, and gives his address, it should be sufficient. Very few people abuse library privileges, and we have found that the people who do misuse a library are the very ones who defy all red tape in the end.

We allow people to take as many books of non-fiction as they wish to carry home, with the understanding that in case any one of those books is called for they will return it at once. Of course, we do not allow this when we know the same books are used by more people, but, as a rule, we are safe in doing it. We think we should grant as many privileges as we can, but we must always be sure that we are not going to deprive some one else in doing so.

Better Editions of Good Books.—A book, well bound, clean type, good illustrations, will appeal to people, whereas the same book, cheaply gotten up, will not be looked at. We would advise fewer books and better editions, for if the good is before the patrons they do not miss the large selection. "The illustrations lead young and old alike to the reading of instructive books, often times in preference to the book of fiction."

And we believe there should be the freest possible access to books of the best quality, books placed where people can choose for themselves. It may mean more work for the librarian in the misplacement of books, but the good counterbalances. One likes to handle the books "without formality." "The result is almost invariably that he is attracted to a book in advance of his previous tastes. Perhaps a chance paragraph appeals to some experience or ambition, or an illustration stirs his imagination. The books themselves draw him outside of his previous limitations."

Co-operate personally with your patrons, solicit suggestions, invite patrons to make requests, and satisfy those requests at once. In this way "the library can aid, and in many cases does, guide and direct the reading of the public into channels which it would never know but for that guidance."

It is better to buy a few books often than many books seldom. The public is always interested in the new, and indifferent to the old. Even small

libraries can do this much, though the lack of funds may be a drawback. Yet the new books, even few in number, keep interest in the library alive; for the living thing is the thing which holds us, and in library work that thing which makes for good is our efforts.

Miss Nellie A. Olson, librarian of the Mayville normal school, spoke informally on the "Relation of Libraries to Public Schools From the Teacher's Standpoint."

The following persons contributed to a symposium on "Better Support for Libraries." Bishop Cameron Mann for the trustee; Mr. Emerson H. Smith for the public; Elizabeth Abbott for the librarian; and Mr. Sveinbjorn Johnson for the state commission.

During the business meeting which followed, the committee on the constitution reported the following constitution:

CONSTITUTION.

1. NAME.

This organization shall be known as the North Dakota Library Association.

2. OBJECT.

Its object shall be to promote fraternal relations among librarians and those interested in library work, to co-operate with the public library commission, in the establishment of new libraries, to secure their co-ordination, and further the usefulness of those libraries already established.

3. MEMBERSHIP.

(a) Active Membership. Any person officially connected as trustee librarian, or assistant with any public, college or other library of the state, or any person actively interested in library work, shall, upon payment of an annual fee of one dollar, be entitled to active membership in the association with right to vote.

(b) Associate Membership. Any person not officially connected with any library may become an associate member by paying an annual fee of fifty cents, but shall not be entitled to vote.

(c) Institutional Membership. Any library in the state, or any organization interested in library work, may on payment of two dollars annual fees, become a member of the association and be entitled to send a delegate with full powers of active membership.

4. OFFICERS.

The officers shall consist of a president, one vice president, a secretary treasurer, to be elected by ballot at the annual meeting. The duties of these officers shall be such as usually devolve upon them in similar organizations.

5. EXECUTIVE BOARD.

The officers of the association, together with the retiring president ex-officio and one member of the association, elected yearly, shall constitute the executive board. It shall be the duty of the board to prepare questions for discussion at the annual meeting; to consider and mature plans for the general work of the same; to approve all bills before payment by the treasurer; and to transact all business of the association in the intervals between its meetings.

6. MEETINGS.

There shall be an annual meeting at such time and place as will best enable the association to secure the co-operation of other state associations. The time and place shall be decided by the executive committee. Special meetings shall be called by the president at the request of ten members, providing one month's previous notice be duly given.

7. QUORUM.

Ten members present at any annual or called meeting shall constitute a quorum for the transaction of business.

8. AMENDMENT.

This constitution may be amended at any annual meeting by a two-thirds vote of the members present, notice of the proposed change having been given in the call for the meeting.

On motion of Dr. Batt, seconded by Miss Schlanser, it was voted that under article 6, the one month be changed to two weeks.

On motion of Mr. Thompson, who had given over chairmanship of the meeting to Mr. Johnson, seconded by Miss Schaefer, it was voted that Article 8 be amended to read: This constitution may be amended at any annual meeting by a two-thirds vote of the members present.

It was voted that further consideration of the constitution be left until after the lunch hour, on motion of Mr. Thompson, seconded by Dr. Batt. At which suggestion the meeting was adjourned to meet at the Agricultural College library after luncheon, which was tendered to the librarians by the domestic science department of the college.

At 1:55 p. m. Mr. Thompson called the final session of the convention to order and the following business was considered:

Dr. Batt moved that the institutional membership as mentioned in the constitution be reduced to \$1.00. No second.

On motion of Miss Schlanser, seconded by Miss West it was moved that the by-laws with amendment be adopted, which makes that constitution and by-laws as follows:

CONSTITUTION.

ARTICLE 1.—NAME.

This organization shall be known as the North Dakota Library Association.

ARTICLE 2.—OBJECT.

Its object shall be to promote fraternal relations among librarians and those interested in library work, to co-operate with the public library commission in the establishment of new libraries, to secure their co-ordination, and further the usefulness of those libraries already established.

BY-LAWS.

SECTION 1.—MEMBERSHIP.

(a) Active Membership. Any person officially connected as trustee, director, librarian or assistant with any public, college or other library of the state, or any person actively interested in library work, shall, upon payment of annual dues of one dollar, be entitled to active membership in the association with right to vote. Provided, however, that the charter or original members of this association may at all times become active members upon payment of the annual dues.

(b) Associate Membership. Any person not officially connected with any library may become an associate member by paying the annual dues of fifty cents, but shall not be entitled to vote.

(c) Institutional Membership. Any library in the state, or any organization interested in library work, may on payment of two dollars annual dues, become a member of the association and be entitled to send a delegate with full powers of active membership.

SECTION 2.—OFFICERS.

The officers shall consist of a president, one vice-president, a secretary-treasurer, to be elected by ballot at the annual meeting. The duties of these officers shall be such as usually devolve upon them in similar organizations.

SECTION 3.—EXECUTIVE BOARD.

The officers of the association, together with the retiring president ex-officio, and one member of the association, elected yearly, shall constitute the executive board. It shall be the duty of the board to prepare questions for discussion at the annual meeting; to consider and mature plans for the general work of the same; to approve all bills before payment by the treasurer; and to transact all business of the association in the intervals between its meetings.

SECTION 4.—MEETINGS.

There shall be an annual meeting at such time and place as will best enable the association to secure the co-operation of other state associations. The time and place shall be decided by the executive board. Special meetings shall be called by the president at the request of ten members, provided two weeks previous notice be duly given.

SECTION 5.—QUORUM.

Ten members present at any annual or called meeting shall constitute a quorum for the transaction of business.

SECTION 6.—AMENDMENT.

This constitution may be amended at any annual meeting by a two-thirds vote of the members present.

A verbal report was given by Elizabeth Abbott as chairman of the committee on traveling libraries.

Mr. Thompson appointed the following committee to revise the state library laws: S. Johnson of Bismarck; Mr. Chas. Compton of University, and Dr. Batt of Agricultural College.

On motion of Mr. Compton, seconded by Miss Olson, it was voted that the North Dakota Library Association join the American Library Association.

Election of officers being the next thing in order, Mr. Thompson appointed Miss Schlanser and Miss West tellers.

On motion of Dr. Batt, seconded by Miss West, it was voted that Dr. Libby be nominated for president. Mr. Johnson moved that the nominations be closed.

On motion of Miss Olson, seconded by Miss Schlanser, it was voted that the secretary cast a vote for Dr. Libby as president for the ensuing year.

On motion of Miss Abbott, with the suggestion from Mr. Johnson that the nominations be closed, Miss Clara H. Kunst, of Minot, was nominated vice president.

Dr. Batt moved that the secretary cast a ballot for Miss Kunst.

Mr. Johnson nominated Miss Mabel G. West, of Valley City, for secretary-treasurer. Miss Schlanser moved that the secretary cast a ballot for Miss West as secretary-treasurer.

On motion of Miss Schlanser, seconded by Miss Abbott, it was voted that the secretary cast a vote for Dr. Batt as trustee.

At this time Mr. Thompson made a short speech upon retirement and asked Miss Kunst to act as president in Dr. Libby's absence.

Miss West extended to the association, on behalf of the normal school at Valley City, an invitation to meet at that city next year. On motion of Mr. Thompson, seconded by Miss Schlanser, it was voted that our next meeting be held at Valley City.

Communications were read by Dr. Batt and Mr. Thompson from Miss Miller, lately resigned director of the state library commission. On motion of Dr. Batt, seconded by Miss Olson, it was voted that the following resolution be sent Miss Miller:

Resolved that we, the members of the North Dakota Library Association, learn with regret that Miss Zana K. Miller has been obliged to resign the directorship of the North Dakota Library Commission on account of failing health, after a year of faithful and strenuous service, during which time she has done much to arouse and promote interest in library work throughout the state; and that we sincerely hope that she may soon be restored to perfect health again.

And resolved that a copy of this resolution be sent to Miss Miler by the secretary of this association.

On motion of Miss Olson, seconded by Miss Abott, it was voted that a vote of thanks be extended to our retiring president, Mr. Frank J. Thompson, for his untiring interest and efficient and faithful work done for the association and the library movement in the state.

On motion of Mr. Thompson, seconded by Dr. Batt, it was voted that the secretary prepare the minutes of this as well as the last convention and send to the superintendent of public instruction, so that they may be printed with the next annual proceedings of the North Dakota Educational Association. Also that the list of members of this association be included in this report.

The following topics were discussed in the round table which followed:

How many people outside city or village borrow books from your library?

Is your library free to them?

What have you done to get country readers?

What chance do they have to get books from other sources?

What are you doing to secure better reading?

Do you use book marks?

Do you supply foreign books and how much are they used?

Do you circulate magazines?

Is your reading room open on Sunday?

Loaning of one book, at most two at a time.

Requiring guarantors from adults.

Never loaning outside city limits.

Permitting but one renewal.

Restricting Sunday readers to material in the reading room.

Retention of borrower's card for unpaid fine.

Seven day book—Shall we renew or transfer it?

Shall we loan reference books?

On motion of Mr. Thompson, seconded by Miss Olson, a vote of thanks was extended to Elizabeth Abbott as a mark of appreciation for her efficient and faithful work for the association.

On motion of Miss Abbott, seconded by Miss Kunst, it was voted that a vote of thanks be extended to the people of Fargo, especially those in the libraries of Fargo and Moorhead and the Agricultural College, for the kindnesses and courtesies extended to the visiting delegates to this convention.

On motion of Miss Abbott, seconded by Miss Schlanser, it was moved that the third annual meeting of the North Dakota Library Association come to an end.

ELIZABETH ABBOT,
Secretary.

LIST OF MEMBERS OF THE NORTH DAKOTA LIBRARY
ASSOCIATION.

| | | |
|----------------------------------|---|--------------------------|
| *Abbott, Elizabeth, librarian | Grand Forks public library | Grand Forks |
| *Ash, Miss Ruth J. | | Fargo |
| *Bartlett, Mrs. Ada. L. | | Mandan |
| *Batt, Dr. Max | | Agricultural College |
| Blanchard, Mrs., librarian | public library | Thief River Falls, Minn. |
| Ninety eight | Educational association | f Humphreys |
| *Bolley, Mrs. Henry L. | | Fargo |
| *Burleson, Mrs. Hugh L. | | Fargo |
| Carhart, Edith | | Mayville |
| *Cole, J. S., librarian | public library | Lakota |
| Compton, Chas. H., librarian | University library | University |
| **Fellows, Mrs. A. Lincoln | | Bismarck |
| Grafton Public Library | | Grafton |
| Grand Forks Public Library | | Grand Forks |
| Kunst, Miss Clara H., librarian | Minot public library | Minot |
| Libby, Dr. O. G. | | Grand Forks |
| **MacDonald, Miss Alice | | Valley City |
| *McVeety, Mrs. Ethel, librarian | Agricultural College Library, Agr'l College | |
| **Miller, Miss Zana K. | | Bismarck |
| *Mirick, Miss Lillian, librarian | North Dakota School of Science, Wahpeton | |
| *Morris, Miss Mary, librarian | Grafton Public Library | Grafton |
| North Dakota School of Science | | Wahpeton |
| *Olson, Miss Nelle A., librarian | Mayville Normal Library | Mayville |
| Public Library Commission | | Bismarck |
| *Ruediger, Mrs. Gustave | | Grand Forks |
| Schaefer, Miss Ida, librarian | Fargo Public Library | Fargo |
| *Schlanser, Miss Mary | | Fargo |
| Simmons, Miss A. L. | | Agricultural College |
| *Stanford, Miss May K. | | Fargo |
| Stearns, Dr. Wallace N. | | Grand Forks |
| *Stockwell, W. L. | | Bismarck |
| **Strong, George Franklin | | University |
| *Thompson, Frank J., librarian | Masonic Library | Fargo |
| Vittum, Miss Bertha, librarian | Fargo College Library | Fargo |
| Wesley College Library | | University |
| *West, Miss Mabel K., librarian | Valley City normal library, | Valley City |
| Wilder, Frank W. | | Grand Forks |
| Williams, H. O. | | St. Paul, Minn. |

*Charter members.

**Have left the state.

PROCEEDINGS

Twenty-third Annual Session

OF THE

North Dakota Educational
Association

Held at Minot, December 28 to 31, 1909

Published by Legislative Enactment Under the Direction
of the Department of Public Instruction,
State of North Dakota

BISMARCK, N. D.
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LETTER OF TRANSMITTAL

*Hon. W. L. Stockwell, State Superintendent of Public Instruction, Bismarck,
North Dakota:*

DEAR SIR: I have the honor herewith to submit to you this volume of proceedings of the twenty-third annual meeting of the North Dakota Educational Association, printed under authority of legislative enactment and under the supervision of the department of public instruction.

Respectfully yours,

CLYDE R. TRAVIS,
Secretary N. D. E. A.

HISTORICAL TABLE

| Date | Place | President | Secretary | Member p | Fees |
|--------|--------------|--------------------|-------------------|----------|----------|
| 1887 | Fargo | John Ogden | Joseph Kennedy. | 43 | \$ 29.50 |
| 1888 | Jamestown . | Homer Sprague .. | Joseph Kennedy. | 34 | |
| 1889 | Grand Forks | Wm. Mitchell | O. P. Rider | 48 | 27.00 |
| 1890 | Fargo | M. A. Shirley | W. M. House ... | .... | 43.50 |
| 1891 | Grand Forks | A. L. Woods | Miss E. C. Lewis | 75 | 58.50 |
| 1892 | Valley City. | J. M. Devine | Miss M. Portner. | 77 | 60.50 |
| 1893 | Wahpeton.. | L. B. Fancher | E. M. Warren... | 94 | 79.50 |
| | | | (W. F. Lorin)* | | |
| 1894 | Hillsboro... | C. E. Jackson | W. F. Lorin | 56 | |
| 1895-8 | Grand Forks | Joseph Kennedy.. | W. L. Stockwell | 135 | 105.50 |
| 1896 | Fargo | W. T. Perkins ... | W. L. Stockwell | .... | 104.00 |
| 1897 | Grand Forks | W. E. Hoover ... | L. H. Allen..... | .... | 119.00 |
| 1898 | Fargo | E. J. Taylor | A. M. Simpson.. | .... | 142.00 |
| 1899 | Grand Forks | W. L. Stockwell.. | George Martin .. | .... | 142.50 |
| 1900 | Fargo | G. A. McFarland. | George Martin .. | ... | 116.50 |
| 1901-2 | Grand Forks | Miss E. M. Stout.. | George Martin .. | | |
| 1902 | Fargo | W. E. Hicks | George Martin .. | 135 | 120.50 |
| | | | (A. P. Hollis)* | | |
| 1903 | Grand Forks | C. C. Schmidt.... | A. P. Hollis..... | 258 | 203.50 |
| 1904 | Fargo | J. H. Worst | A. P. Hollis..... | 158 | |
| 1905 | Grand Forks | Joseph Carhart ... | A. P. Hollis..... | 302 | 354.00 |
| 1906 | Fargo | P. S. Berg | A. P. Hollis..... | 323 | 402.00 |
| 1907 | Grand Forks | Vernon P. Squires | A. P. Hollis..... | 335 | 437.00 |
| 1908 | Valley City. | Mrs. M. M. Davis | C. R. Travis..... | 338 | 423.00 |
| 1909 | Minot | A. P. Hollis | C. R. Travis..... | 326 | 377.25 |

*Pro tem

CONSTITUTION

ARTICLE I—NAME.

This organization shall be known as the North Dakota Educational Association.

ARTICLE II—PURPOSE.

The purpose of the association shall be to elevate the character and advance the interests of the profession of teaching and promote the cause of education in North Dakota.

ARTICLE III—DEPARTMENTS.

Section 1. This association shall consist of the following departments:

1. Higher and professional education.
2. Secondary education.
3. County superintendence.
4. Elementary education.
5. School administration.

Sec. 2. Other departments may be organized by a majority vote of the association at a regular annual meeting upon the petition of ten active members.

ARTICLE IV—MEMBERSHIP.

Section 1. There shall be two classes of members, active and associate.

Sec. 2. Active members shall consist of all those engaged in educational work who shall have paid the annual dues for the preceding year.

Sec. 3. Any other person who has been a member and who has paid his dues for the two preceding years shall be considered an active member.

Sec. 4. Any person engaged in educational work may become an active member by the payment of annual dues and his membership fee.

Sec. 5. Any person paying an annual fee of \$1 may become an associate member.

Sec. 6. The membership fee and annual dues shall be \$1 each.

Sec. 7. Active members only shall have the right to vote in this association.

Sec. 8. All active members shall be entitled to a volume of the proceedings.

ARTICLE V—OFFICERS.

Section 1. The officers of this association shall consist of a president, two vice presidents, secretary, treasurer and an executive committee.

Sec. 2. The executive committee shall consist of the president and secretary of the association for the ensuing year, the state superintendent, and one member annually elected from each of the different departments.

Sec. 3. The president of the association shall be ex-officio president of the executive committee.

Sec. 4. The duties of the president, secretary and treasurer shall be such as usually pertain to such officers.

Sec. 5. The duties of the executive committee shall be to prepare the program and to make such arrangements as are necessary for the annual meeting.

Sec. 6. The member from each department shall prepare the program for his department.

Sec. 7. Each department shall be administered by a president, vice-president and a secretary, the state superintendent being, ex-officio, president of the department of county superintendence.

Sec. 8. No person shall be elected to any office in the general association or in any department who is not an active member of the association.

ARTICLE VI—COMMITTEES

Section 1. A committee of five on resolutions and a committee of three on necrology shall be appointed by the president at the first general session of the association.

Sec. 2. The committee on nominations shall consist of two members to be elected by the general association and one from each of the departments at the first session of each.

ARTICLE VII—TIME AND PLACE.

Section 1. The association shall meet in Grand Forks and Fargo on alternate years and at such date as the executive committee shall determine.

ARTICLE VIII—AMENDMENTS.

This constitution may be amended by a two-thirds vote of the active members present and voting at any regular meeting, notice of such amendment having been given at the first session of the association.

AMENDMENTS.

Amendment to Article V, section 4 (passed in 1907).

Sec. 4. The duties of president and treasurer shall be such as usually pertain to such offices.

The secretary shall perform such duties as are required of him by the executive committee and shall receive fifty dollars per annum for his services, and he shall receive further all necessary expenses of conducting his office.

Amendment to Article VII (passed in 1907).

The association shall meet annually at Grand Forks or Fargo, or such other cities of the state as the association may from time to time elect.

Article IV was amended in 1908 to read as follows:

Section 1. There shall be two classes of members, active and associate.

Sec. 2. Any person engaged in educational work and any member of a board of education shall become an active member of this association

upon payment of the annual dues of one dollar; provided that the adoption of this amendment shall not affect the privileges of any person now enjoying membership in this association.

Sec. 3. Any person not engaged in educational work shall become an associate member of this association upon payment of the annual dues of one dollar.

Sec. 4. Active members only shall have the right to vote in this association.

Sec. 5. Every member shall be entitled to a volume of the proceedings.

Article V was amended in 1908 to read as follows:

Section 1. The officers of this association shall consist of a president, two vice presidents, a secretary, a treasurer, an executive committee and a finance committee.

Sec. 2. The executive committee shall consist of the president and secretary of the association for the ensuing year, the state superintendent, and one member elected annually from each of the following departments: Department of Higher and Professional Education, Department of Secondary Education, Department of Elementary Education, Department of Superintendence, Department of School Administration.

(Sections 3 and 4 are unchanged.)

Sec. 5. The duties of the executive committee shall be to prepare the program and make such arrangements as are necessary for the annual meeting. The annual meeting of the executive committee shall be held prior to the fifteenth of June of each year. Each member of this committee elected from a department shall, at this annual meeting, present a tentative program for the department from which he was elected. The committee shall have the data for the final program in the hands of the secretary six weeks prior to the date set for the annual meeting.

(Sections 6, 7 and 8 are unchanged.)

Sec. 9. The finance committee shall consist of three members elected annually by the association.

Sec. 10. The duties of the finance committee shall be to authorize the payment of all bills, and to audit the accounts of the secretary and treasurer.

Article VII as amended in 1909.

The association shall meet annually at Grand Forks or Fargo or such other cities in the state as the association may from time to time elect, between the date of October 15 and November 15, on such specific dates as the executive committee shall determine.

OFFICERS FOR 1909.

GENERAL ASSOCIATION.

PresidentProf. A. P. Hollis, Valley City
 First Vice PresidentSupt. B. A. Dunbar, Lidgerwood
 Second Vice PresidentSupt. G. M. Lovell, Dickey County
 TreasurerSupt. C. Ellithorpe, Williston
 SecretaryProf. Clyde R. Travis, Mayville

DEPARTMENT OF HIGHER AND PROFESSIONAL EDUCATION.

President.....Prof. Charlton Andrews, Valley City
 Vice PresidentPres. W. M. Kern, Ellendale
 Secretary.....Prof. P. G. Knowlton, Fargo

DEPARTMENT OF SECONDARY EDUCATION.

PresidentSupt. E. R. Edwards, Minto
 Vice President.....Supt. G. W. Hanna, Valley City
 Secretary.....Supt. A. J. Crane, Jamestown

DEPARTMENT OF ELEMENTARY EDUCATION.

PresidentSupt. W. E. Hoover, Fargo
 Vice PresidentPrin. A. H. Gleason
 Secretary.....Miss Margaret Rutherford, Mayville

DEPARTMENT OF SUPERINTENDENCE.

PresidentState Superintendent W. L. Stockwell, Bismarck
 Vice PresidentSupt. A. G. Miller, Steele County
 SecretaryDeputy State Supt. E. J. Taylor, Bismarck

DEPARTMENT OF SCHOOL ADMINISTRATION.

PresidentC. E. Best, Enderlin
 SecretaryR. B. Cox, Wimbledon
 Member of Executive CommitteeHomer Hilborn, Portal

DEPARTMENT OF SCIENCE AND MATHEMATICS.

PresidentProf. H. L. Bolley, Agricultural College
 Vice PresidentC. C. Gray, Grafton
 SecretaryProf. Clyde R. Travis, Mayville

DEPARTMENT OF HISTORY, CIVICS AND SOCIAL SCIENCES.

PresidentSupt. H. L. Rockwood, Enderlin
 Vice PresidentSupt. J. A. Johnson, Hillsboro
 Secretary.....Miss Genevieve M. Turner, Valley City

DirectorsDr. J. M. Gillette and Mrs. Mattie M. Davis
 Chairman Committee on BiographySupt. Jesse Tanner, Jamestown
 Chairman Com. on Travel and Adventure, Supt. Minnie J. Nielson, Barnes
 County.
 Chairman Committee on Indian MythologyDr. O. G. Libby

DEPARTMENT OF MUSICAL INSTRUCTION.

President.....Miss Fannie C. Amidon, Valley City
 Vice President.....Miss Clara B. Aldahl, Valley City
 Secretary.....Miss Eleanor Dougherty, Geneseo

EXECUTIVE COMMITTEE.

ChairmanA. P. Hollis, Valley City (President N. D. E. A.)
 Dept. of Higher and Professional Education....Prof. Andrews Valley City
 Dept. of Secondary Education.....Supt. E. R. Edwards, Minto
 Dept. of Elementary Education.....Supt. W. E. Hoover, Fargo
 Dept. of SuperintendenceSupt. B. E. Groom, Langdon
 Dept. of School Administration.....Homer Hilborn, Portal
 State Superintendent (ex-officio)W. L. Stockwell
 Secretary of N. D. E. A. (ex-officio)Clyde R Travis, Mayville

LOCAL COMMITTEE.

Mr. Tracy, Minot, Chairman.
 Mr. Wolfe, Minot.
 Mr. Warren, Minot.

COMMITTEE ON AUDIT.

W. E. Hoover, Fargo, Chairman.
 B. E. Groom, Langdon.
 J. M. Gillette, University.

COMMITTEE ON NEUROLOGY.

Pres. G. A. McFarland, Chairman.
 W. E. Hoover.

COMMITTEE OF SEVEN.

C. C. Schmidt, Chairman].
 T. A. Hillyer.
 W. A. Godward.
 B. A. Wallace.
 W. L. Stockwell.
 G. Knowlton.
 E. Willard.
 M. Kern.*

*Appointed to succeed Hon. W. L. Stockwell, resigned.

OFFICERS FOR 1910

GENERAL ASSOCIATION.

PresidentSupt. F. E. Smith, Wahpeton
 First Vice President.....Supt. Minnie J. Nielson, Barnes County
 Second Vice PresidentMiss Eula J. Miller, Fargo Public Schools
 Treasurer.....Superintendent C. Ellithorpe, Williston
 Secretary.....Professor Clyde R. Travis, State Normal, Mayville

DEPARTMENT OF HIGHER AND PROFESSIONAL EDUCATION.

PresidentProfessor M. A. Brannon, State University
 Vice PresidentProfessor A. D. Weeks, Agricultural College
 SecretaryProf. P. G. Knowlton, Fargo College

DEPARTMENT OF SECONDARY EDUCATION.

PresidentSuperintendent S. Henry Wolfe, Minot
 Vice PresidentSuperintendent H. A. Tewell, Cando
 SecretarySuperintendent Franklin Thordarson, Mayville

DEPARTMENT OF ELEMENTARY EDUCATION.

PresidentSuperintendent C. C. Gray, Grafton
 Vice President.....Superintendent B. A. Wallace, Traill County
 SecretaryMiss Eula Miller, Fargo Public Schools

DEPARTMENT OF SUPERINTENDENCE.

PresidentState Superintendent W. L. Stockwell, Bismarck
 Vice President.....Superintendent Helen Prindeville, Grand Forks County
 SecretaryDeputy State Supt. E. J. Taylor, Bismarck
 Member of Exec. Com., Supt. Dalton McDonald, Towner, McHenry County

DEPARTMENT OF SCHOOL ADMINISTRATION.

PresidentJ. S. McNish, Fairdale
 SecretaryA. B. Cox, Wimbledon
 Member of Executive CommitteeJ. P. Tanberg, Driscoll

DEPARTMENT OF SCIENCE AND MATHEMATICS.

PresidentSuperintendent C. C. Gray, Grafton
 Vice President.....Professor E. F. Chandler, State University
 SecretaryProf. Clyde R. Travis, State Normal, Mayville

DEPARTMENT OF HISTORY, CIVICS AND SOCIAL SCIENCES.

President.....Professor R. M. Black, State Science School, Wahpeton
 Vice President.....Pres. W. B. Thomas, Jamestown College, Jamestown
 Secretary.....Miss Bertha Palmer, Larimore Public Schools
 Directors..Dr. J. M. Gillette, University; Supt. Mattie M. Davis, Cass Co.

Chairman of Com. on Biography.....Dr. Wallace Stearns, University
 Chairman of Com. of Indian Mythology.....Dr. O. G. Libby, University
 Chairman of Com. on Travel and Adventure.....H. L. Rockwood, Enderlin

DEPARTMENT OF MUSICAL EDUCATION.

PresidentMiss Fannie C. Amidon, Valley City
 Vice PresidentMiss Clara B. Aldahl, Valley City
 SecretaryMiss Eleanor Dougherty, Geneseo Public Schools
 Program Committee.....Miss Mary E. Pett, Minot Public Schools

DEPARTMENT OF INDUSTRIAL EDUCATION.

President.....Pres. W. M. Kern, State Normal Industrial School, Ellendale
 Vice PresidentC. A. Brockus, Minot High School
 Secretary(To be chosen)

DEPARTMENT OF RURAL SCHOOL EDUCATION.

PresidentMrs. Jean McNaughton Stevens, Towner
 Vice President.....Prof. G. W. Randlett, Agricultural College
 SecretaryMiss Anna O. Gjeldstad, Velva, N. D.

EXECUTIVE COMMITTEE.

Chairman.....Supt. F. E. Smith, Wahpeton (Pres. of Gen. Association)
 Dept. Higher and Professional Education, Prof. M. A. Brannon, University.
 Dept. Secondary EducationSupt. S. Henry Wolfe, Minot
 Dept. Elementary Education.....Supt. C. C. Gray, Grafton
 Dept. of Superintendence.....Supt. Dalton McDonald, McHenry Co.
 Dept. School Administration.....J. P. Tanberg, Driscoll
 State Supt. of Public InstructionW. L. Stockwell, Bismarck
 Secretary of General Association..Clyde R. Travis, State Normal, Mayville

COMMITTEE ON NECROLOGY.

President G. A. McFarland, State Normal, Valley City, Chairman.
 Superintendent W. E. Hoover, Fargo.

COMMITTEE OF SEVEN.

Professor C. C. Schmidt, University, Chairman.
 President T. A. Hillyer, State Normal, Mayville.
 Supt. B. A. Wallace, Traill County.
 Professor D. E. Willard, Agricultural College.
 President W. M. Kern, State Normal-Industrial School, Ellendale.
 Superintendent W. A. Godward, Devils Lake.
 Professor P. G. Knowlton, Fargo College.

COMMITTEE ON AUDIT.

Dr. J. M. Gillette, University, Chairman.
 Supt. W. E. Hoover, Fargo.
 Supt. B. E. Groom, Cavalier County.

MEMBERSHIP LIST

| | |
|-------------------------|------------------------|
| Aaker, H. H. | Fargo |
| Abbott, N. C. | Deering |
| Alexander, W. J. | Rolla |
| Amidon, Fannie C. | Valley City |
| Amlie, Camille | White Earth |
| Amundson, Augusta | Valley City |
| Anderson, Amelia | Tioga |
| Andrews, Charlton | Valley City |
| Arbury, H. W. | Minneapolis |
| Armstrong, W. L. | White Earth |
| Avery, E. W. | Box 150, Minneapolis |
| Baillie, Georgie | Valley City |
| Baker, Mrs. J. C. | Minot |
| Barker, Grace E. | Grand Forks |
| *Barnes, M. W. | Valley City |
| Barnes, F. R. | Wahpeton |
| Barton, O. A. | Valley City |
| Beardsley, Etta | Granville |
| Beaven, A. H. | Fargo |
| Berg, P. A. | Englevale |
| Berg, P. S. | Dickinson |
| Best, Alice | Carpio |
| Bestor, Mary | Fargo |
| Billings, Care M. | Surrey |
| Blaine, Lucy H. | Minot |
| Black, R. M. | Wahpeton |
| Bolley, H. L. | Agricultural College |
| Bolton, C. B. | Ft. Ransom |
| Boyle, James | Grand Forks |
| Bragg, Goldie | Norwich |
| Brannon, M. A. | State University |
| Brant, Edith E. | Mayville |
| Brekken, J. L. | Turtle Lake |
| Breman, Lena A. | Surrey |
| Brochus, C. A. | Minot |
| Brownlie, Edith | Bantry |
| Burget, O. W. | Burlington R. R. No. 2 |
| Burley, Mrs. I. A. | Pembina |
| Byrnes, Miss N. C. | Alexandria |

*Died January 19, 1910.

| | |
|----------------------------|-------------|
| Burnett, R. C. | Bismarck |
| Burr, Elizabeth | Grand Forks |
| Butterfield, H. F. | Mayville |
| Cage, Emma J. | Kenmare |
| Cain, Mary Jane | Carrington |
| Carlson, Emma L. | Valley City |
| Champine, Jennie | Fargo |
| Chandler, E. F. | University |
| Chapple, B. P. | Bathgate |
| Christensen, P. E. | Bottineau |
| Clark, Anna | Minot |
| Clark, W. H. | Northwood |
| Cline, Jesse | Minot |
| Clyde, E. T. | Ashley |
| Cole, Helen M. | Minot |
| Collins, C. A. | Coulee |
| Collinson, May | Devils Lake |
| Conway, Hanna L. | Courtenay |
| Cox, R. B. | Wimbledon |
| Crane, A. G. | Jamestown |
| Crane, W. I. | Minneapolis |
| Creegan, C. C. | Fargo |
| Crocker, W. G. | Lisbon |
| Cristle, Miss | Sherbrooke |
| Curran, Hugh A. | Valley City |
| Curtiss, C. C. | Valley City |
| Delager, Blanche | Minot |
| Davis, Mrs. Mattie M. | Fargo |
| Davis, Frederick | Hettinger |
| Davies, Geo. R. | Amenia |
| Dell, Mina A. | Minot |
| Dence, Mr. | Minot |
| Donovan, Katherine | Minot |
| Daugherty, Grace | Denbigh |
| Daugherty, Nellie | Riga |
| Duffy, Calista | Ross |
| Duffy, Rowenna | Ross |
| Dunbar, B. A. | Lidgerwood |
| Duncan, H. E. | Fargo |
| Dwyer, Lizzie | Riga |
| Eberly, C. F. | McClusky |
| Edwards, E. M. | Minto |
| Ellison, Gertrude E. | Minot |
| Ellithorpe, C. E. | Williston |
| Emberland, John | St. Paul |
| Evarts, Nellie | Bismarck |
| Fansler, Minda | Larimore |
| Faust, Charles | Esmond |

| | |
|---------------------------|--------------------|
| Fish, H. C. | Bismarck |
| Fitch, H. N. | Steele |
| Flegal, Christ | Kuholm |
| Flora, N. E. | Denbigh |
| Forster, Geo. F. | Harvey |
| Forster, Mrs. G. F. | Harvey |
| Fradd, N. D. | Rolette |
| Friland, John B. | Drake |
| Gang, John | Cando |
| Gillette, J. M. | University |
| Girton, Ida M. | Rugby |
| Gjelstad, Anna | Velva |
| Gjerness, K. O. | Sharon |
| Gleason, A. H. | Ross |
| Gleason, R. S. | Sioux Falls, S. D. |
| Godward, W. A. | Devils Lake |
| Gray, C. C. | Grafton |
| Gordon, Anton | Bottineau |
| Greaves, G. R. | Bowbells |
| Groom, B. E. | Langdon |
| Groves, R. A. | Bordulac |
| Grovum, Nels | Park River |
| Gummer, F. A. | Perth |
| Hackett, Elsie H. | Valley City |
| Haig, J. A. | Devils Lake |
| Haight, M. V. | Osnabrock |
| Halloway, C. R. | Park River |
| Hankins, F. H. | Wahpeton |
| Hankins, S. T. | Oberon |
| Hanna, G. W. | Valley City |
| Hanson, H. H. | Linton |
| Harrington, F. B. | Towner |
| Hart, W. W. | New Rockford |
| Herrick, Mrs. Una B. | Valley City |
| Heyward, Aaron | Park River |
| Hess, A. B. | Larimore |
| Hilborn, E. C. | Valley City |
| Hilburn, Ralph | Mohall |
| Hildahl, Esther | Velva |
| Hillyer, T. A. | Mayville |
| Hinman, Lydia | Driscoll |
| Hbadley, Effie D. | Minnewaukan |
| Holt, Mabelle | Palermo |
| Hollis, A. P. | Valley City |
| Hoose, May | Caledonia |
| Hoover, W. E. | Fargo |
| Hoy, Ora | Minot |
| Hunter, M. C. | Munich |

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| Hurd, Mildred M. | Crary |
| Hurd, Orra L. | Steele |
| James, M. C. | Valley City |
| Jarvis, Frank | Oakes |
| Johnson, Alice M. | Minot |
| Johnson, Florence M. | Caledonia |
| Johnson, Morris | Valley City |
| Kampen, I. A. | Cooperstown |
| Kane, Bessie M. | Stanley |
| Kanute, Margaret | Ross |
| Krattley, M. | Anamoose |
| Kammer, M. W. | Shinford Dist., Ransom County |
| Kelly, J. N. | Grand Forks |
| Kemp, J. A. | Bottineau |
| Kennedy, Joseph | University |
| Kern, W. M. | Ellendale |
| Kitchen, J. A. | Sentinel Butte |
| Knowlton, P. G. | Fargo |
| Korte, Barney | Foxholm |
| Krupper, J. C. | Anamoose |
| Ladd, A. J. | University |
| Lamont, R. M. | Fargo |
| Lampert, Margaret E. | Sherwood |
| Lang, John R. | Sherwood |
| Loftsgaarden, H. C. | Washburn |
| Larson, Bernard | Mohall |
| Leonard, A. G. | University |
| Lillepaugh, Annette | Velva |
| Linnertz, Gertrude | Minot |
| Linn, Louis P. | Kenmare |
| Lokken, O. J. | Velva |
| Lohren, Marie | Minot |
| Lorin, W. F. | Mandan |
| Lovell, Mrs. G. M. | Ellendale |
| Lovett, Mrs. Laura G. | Knox |
| Luther, Louise | Fargo |
| McAndrew, Mary | Williston |
| McArdle, H. W. | Agricultural College |
| McBee, A. L. | Minneapolis |
| McCalmont, R. A. | Napoleon |
| McCarten, Tene | Forman |
| McCauley, Mrs. C. W. | Kenmare |
| McDonald, Dalton | Towner |
| McDonald, Florence | Valley City |
| Macdonald, N. C. | Grand Forks, care University |
| Macdonald, Mrs. Kate B. | Valley City |
| MacLain, Etta | Drayton |
| McFarland, G. A. | Valley City |

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| McGlinch, Lilah | Grand Forks |
| McLain, J. F. | Towner |
| McMillen, P. A. | Carrington |
| McNally, P. T. | Mandan |
| McNish, J. S. | Fairdale |
| McVey, Frank L. | University |
| Madsen, C. T. | 378 Wabash Ave., Chicago |
| Malone, Elizabeth | Nansen |
| Masters, Letitia | Hannah |
| Marshall, Berthena | Minot |
| Maxwell, H. H. | New Rockford |
| Meek, Jennie | Berthold |
| Melby, C. L. | Emerson |
| Miller, A. G. | Sherbrooke |
| Miller, Eula | Fargo |
| Minsart, Phoebe | Minot |
| Mitchell, Frank N. | Edmore |
| Moon, Hazel | Minot |
| Morrison, Nellie | Niagara |
| Morton, W. M. | Chicago |
| Mullen, Lyn. B. | Valley City |
| Muller, A. G. | Portland |
| Murray, Elizabeth | Anamoose |
| Mustain, L. G. | Devils Lake |
| Moore, Wm. | Bismarck |
| Myers, H. B. | Barlow |
| Nelson, Alfred | Towner |
| Nelson, Alma B. | Valley City |
| Nelson, C. J. N. | Beach |
| Nelson, Lena | Berthold |
| Nestoss, R. A. | Minot |
| Newell, Blanche | Valley City |
| Nielson, Minnie J. | Valley City |
| O'Brien, Kate | Fargo |
| Oldham, Alice | Grafton |
| Olson, Knute | Temple |
| Ottenburn, W. H. | Jamestown |
| Palmer, Bertha | Devils Lake |
| Palmer, Clarabelle | Devils Lake |
| Patrick, Inga A. | Michigan |
| Pease, S. J. | University |
| Peffer, T. G. | Knox |
| Perrine, Laura L. | Valley City |
| Perrott, G. St. John | University |
| Peterson, Anna | Bottineau |
| Peterson, Emile | Gackle |
| Peterson, Mrs. Lizzie | Caledonia |
| Peterson, P. D. | Minot |

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| Pett, Mary E. | Minot |
| Phelps, J. H. | Williston |
| Phifer, Grace | Ray |
| Phifer, Maude | Stanley |
| Pierce, C. V. | LaMoure |
| Pierson, T. G. | Hope |
| Platt, F. R. | Drake |
| Pope, M. N. | Mayville |
| Poppy, Dorothy | Minot |
| Prindeville, Helen | Grand Forks |
| Putnam, H. J. | Underwood |
| Raihle, Florence | Minot |
| Randels, Geo. | Valley City |
| Randlett, G. W. | Agricultural College |
| Rankin, Maude | Belmont, Iowa |
| Records, Ida | New Rockford |
| Regan, Maude T. | Fessenden |
| Rice, C. E. | Crosby |
| Richardson, Anna | Drayton |
| Richards, Eva | Valley City |
| Riddle, J. L. | Eckman |
| Roach, Ellen Mattson | New Rockford |
| Robertson, Ella M. | Bathgate |
| Rockwood, H. L. | Enderlin |
| Rader, Lloyd | Dickinson |
| Rawlins, Cora M. | Valley City |
| Rutherford, Margaret | Mayville |
| Sanderson, Laura B. | LaMoure |
| Sanderson, Anzonette | Valley City |
| Sauvain, Nelson | Casselton |
| Schirlie, Viggo | Crary |
| Schmidt, C. C. | University |
| Schmidt, W. J. | Albert Lee, Minn. |
| Schosegge, Josie M. | Minot |
| Seiple, Lucy | Rugby |
| Sheldon | District No. 1 |
| Sherry, E. M. | Rolla |
| Shirk, J. P. | Hurdsfield |
| Selden, F. H. | Valley City |
| Selden, Mrs. F. H. | Valley City |
| Sheridan, Margaret | Mohall |
| Sheakley, S. H. | Chicago |
| Short, Edna | Pleasant Lake |
| Sroder, F. A. | Devils Lake |
| Striveth, B. O. | Lakota |
| Sunnenden, J. S. | Brooks |
| Stocum, Lucy A. | Rugby |
| Stith, A. W. | Bottineau |

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|----------------------------|----------------------|
| Smith, F. E. | Wahpeton |
| Smith, Mrs. F. E. | Wahpeton |
| Smith, Violet F. | Minot |
| Spencer, Nettie | Des Lacs |
| Sprague, G. M. | Towner |
| Squires, V. P. | University |
| Steake, Josephine | Mott |
| Stearns, W. H. | University |
| Stebbins, W. C. | Grand Forks |
| Steffick, F. J. | Minot |
| Stevens, Mrs. | Minot |
| Stevens, Mrs. Jean M. | Towner |
| Stewart, B. E. | Norwich |
| Stratton, F. E. | Fargo |
| Struble, W. J. | LaMoure |
| Stockwell, W. L. | Bismarck |
| Stoliker, C. C. | Drayton |
| Sutton, M. D. | Mandan |
| Sylvester, E. D. | Deering |
| Tatem, Mrs. M. P. | Williston |
| Taylor, Alice | Valley City |
| Taylor, B. W. | Harvey |
| Taylor, E. J. | Bismarck |
| Taylor, J. F. | Leal |
| Tewell, H. A. | Cando |
| Thomas, Geo. S. | University |
| Thomas, W. B. | Jamestown |
| Thompson, N. H. | Mayville |
| Thordarson, F. | Mayville |
| Thorson, Andrew | Hatton |
| Thorkeldson, H. G. | Columbus |
| Tjaden, J. C. | Kulm |
| Todd, Amanda | Williston |
| Tanberg, John P. | Driscoll |
| Tormey, J. M. | Aberdeen |
| Torr, Mary Ida | Upham |
| Tracy, A. W. | Minot |
| Travis, Clyde R. | Mayville |
| Trace, O. T. | Burlington |
| Truax, Lily B. | Sherwood |
| Trulson, Otto .. | Bowbells |
| Turner, Genevieve M. | Valley City |
| Vigness, C. L. | Bismarck |
| Wagle, Anna N. | Valley City |
| Wallace, B. A. | Hillsboro |
| Wakefield, A. W. | Walhalla |
| Walter, W. B. | Minneapolis |
| Waldron, C. B. | Agricultural College |

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| Wanner, Fred M. | Jamestown |
| Watson, Lake G. | Mayville |
| Warren, E. G. | Minot |
| Wells, A. B. | Minneapolis |
| Wells, B. B. | Grafton |
| West, J. C. | Webster |
| Whitcher, Nellie B. | Valley City |
| Whitcomb, Mrs. Kate B. | Maxbass |
| Wilbur, Ruth A. | Cartwright |
| Willard, D. E. | Agricultural College |
| Wilson, Troy J. | Osnabrock |
| Willenberg, B. | Grano |
| Wiseman, May | Velva |
| Wolfe, S. Henry | Minot |
| Wolfe, Mrs. S. Henry | Minot |
| Worst, J. H. | Agricultural College |
| Woods, A. L. | Grand Forks |
| Zahn, Mercedes | Fargo |

NOTES

MANUAL TRAINING EXHIBIT.

The manual training exhibit held in connection with the State Educational Association fairly represented the progress industrial education is making in the school system of the state. The exhibit comprehended practically every form of hand work at present included in the elementary and high school courses. The excellence and completeness of the work was a surprise to many of the teachers and visitors present. Forty-three cases covering a wall space of almost 700 square feet, held the exhibit. There was also a large display of individual pieces aside from the regular courses. The school represented include Minto, Minot, Harvey, Devils Lake, Williston, Fargo, Valley City, Casselton, the Valley City Normal, the Mayville Normal and the Normal Industrial School.

REUNIONS.

The graduates and former students of Valley City Normal, Mayville Normal, University, University of Wisconsin, former Iowa teachers, and others, planned reunions at this meeting. Each group reported an enthusiastic time and all consider this feature of the state meeting one of the best on the program. It is expected that many more will be at Bismarck next year than have ever met before.

THE GIFT OF THE COMMERCIAL CLUB.

Owing to the additional expenses of the association on account of securing expensive lecturers and of the expenses connected with the Committee of Seven, the association lacked about \$50 of having enough funds to meet its obligations. The Commercial Club of Minot came to the rescue and gave \$50 to the association. This enables us to pay all bills and to have a balance of a few dollars in the treasury.

THE MUSIC OF THE ASSOCIATION.

The music rendered at the general sessions of the N. D. E. A. this year was up to the high standard set at the former places of meeting, and those directly responsible for the rendition of this deserve praise for their interest and for the success of the several numbers. Particular mention should be made of the contributions of Miss Pett, director of music in the public schools of Minot, Supt. S. Henry Wolfe, director of the high school orchestra, and Mr. E. S. Person, director of the Minot Choral Club. The several numbers rendered before the association were as follows:

The Rally—Eighth Grade Chorus.

Call to Arms—High School Boys.

Indian Cantata—Third and Fourth Grades.

"Ah, I Have Sighed to Rest"—High School Girls Glee Club.

"Strollers' Waltz Song"—High School Girls Glee Club.

"Winter Sports" Dramatized—First Grade Pupils.

The above were under the direction of Miss Mary E. Pett. The high school orchestra rendered a selection on Wednesday evening.

"The Miller's Wooing"—Minot Choral Club.

Several selections were rendered by the Minot Male Quartette.

Vocal Solo, "May Morning"—Mrs. Walter Bangs.

Violin Solo—Mr. Ronglie.

Violin Solo—Miss Young.

MINUTES

OF THE GENERAL SESSIONS OF THE TWENTY-THIRD ANNUAL MEETING OF THE NORTH DAKOTA EDUCATIONAL ASSOCIATION,

The evening program was in the hands of the local committee with Supt.

HELD AT MINOT, N. D., DECEMBER 29-31, 1909.

WEDNESDAY AFTERNOON, DECEMBER 29.

The session was called to order by Professor Hollis, President of the General Association at 2:30 p. m., and was opened by prayer by the Rev. J. Rosser Jones of Minot.

The program for this session was given as printed.

At this session Professor Weeks gave notice that at a later meeting he would offer an amendment to the constitution, such amendment to make provision for a fall meeting of the association.

President McVey and Professor R. M. Black were elected members of the nominating committee from the general association.

The meeting was adjourned by motion.

WEDNESDAY EVENING.

E. G. Warren presiding. The program was as follows:

Music—High School Band.

Address of welcome, A. W. Tracy, Pres. Minot Commercial Club.

Address—Mr. Arthur LeSeuer, Pres. City Commission, Minot.

Response—Hon. W. L. Stockwell, State Supt. Public Instruction.

Chorus from "The Messiah"—Minot Choral Club.

Violin Solo—Miss Onoda Jay Young.

Medley—Minot Male Quartette.

Lecture—Dr. Seerley, Pres. Iowa State Teachers' College, Cedar Falls, Iowa.

After the program, the association was tennered a delightful reception by the citizens of Minot. This reception was held in the Opera house, which was tastefully decorated and lighted with a most excellent and pleasing effect. Light refreshments were served and the good people of Minot displayed their hospitality in a manner not to be forgotten by the teachers present.

THURSDAY AFTERNOON, DECEMBER 30.

At 2:30 the session was called to order by Mrs. Martha Tatem, superintendent of schools in Williams county.

The Rev. A. S. Hale led the meeting in prayer.

The third and fourth grades of the public schools rendered an Indian song in a manner which delighted the audience, and displayed the good training of the supervisor, Miss Pett, and a second number was rendered well by the high school boys.

Mr. Wangley played a violin solo very pleasingly and responded to an encore.

Mrs. Walter H. Bangs rendered an excellent vocal solo.

President Hollis now took charge of the meeting and announced several reunions to take place during the afternoon and evening. He further announced that a telegram had been received to the effect that Dr. Forbush could not be present during the afternoon.

President Hollis introduced Ex-Superintendent J. M. Devine, who gave a very pleasing and instructing address, and, representing the Commercial Club of Minot, presented the association with a gavel made from wood native to North Dakota.

Mrs. Stevens, a veteran rural teacher, moved that the association invite all those who have been teachers in rural schools to meet at the close of this session to consider the advisability of organizing a "Department of Rural School Education." The motion prevailed.

Upon motion the report of the nominating committee was received:

Mr. Black reported for this committee that they placed in nomination the following persons:

For President of the General Association—Supt. F. E. Smith, Wahpeton.

For First Vice President—Supt. Minnie J. Nielson, Barnes county.

For Second Vice President—Miss Eula J. Miller, Fargo public schools.

For Treasurer—Supt. Clarence Ellithorpe, Williston.

For Secretary—Prof. Clyde R. Travis, State Normal, Mayville.

Moved to adopt the report and that the secretary be instructed to cast a ballot for the persons as nominated. The motion prevailed, the secretary announced that the ballot was cast according to instructions, and the chair declared the persons named above as duly elected to the respective offices for the ensuing year.

President Hollis named the following as a committee on resolutions: Prof. J. M. Gillette, chairman; Supt. Louis P. Linn, Miss Laura Sander-son, Supt. G. F. Forster and Prof. D. E. Willard.

The committee on audit, consisting of Supt. W. E. Hoover, Prof. J. M. Gillette, and Supt. B. E. Groom, was re-elected for the ensuing year.

Notice having been given at the first session of the general association, Prof. Weeks moved the following amendment to the constitution of the N. D. E. A.:

That Article VII, section 1, be amended to read:

"The association shall meet annually at Grand Forks or Fargo or such other cities in the state as the association may from time to time elect, between the dates of October 15 and November 15, on such specific dates as the executive committee shall determine."

The motion carried and the constitution was declared amended.

By motion it was decided to proceed to determine the place of meeting for the next year.

Supt. Hoover, on behalf of the city schools, the several other educational institutions, the Commercial Club, and the city council, all of Fargo, extended an invitation to the association to meet in Fargo next year.

Mr. E. J. Taylor, on behalf of similar institutions of Bismarck, invited the association to meet in Bismarck next year.

President McFarland moved that a committee of three be appointed to consider the question of meeting place for next year and to report at the next general session.

Mr. Taylor moved to indefinitely postpone the motion just made. The motion to postpone carried.

Supt. Berg moved that the city giving the invitation be required to accompany the invitation with a guarantee of \$200, the guarantee to be signed by three representative citizens acceptable to the president and secretary of the association.

Supt. Hoover moved to amend Mr. Berg's motion by striking out \$200 and substituting \$300. The substitute motion was lost on a rising vote. The original motion was put and lost.

Moved that the city giving the invitation give a guarantee of 200 local memberships, the guarantee to be signed by representative citizens.

Moved to amend the motion by dropping the words "two hundred" and inserting "three hundred" in their stead. The amendment was lost.

The original motion was put and carried.

Moved that the place of meeting for 1910 be decided by the executive committee. The motion was lost.

Moved that the association meet in Fargo in 1910. Motion lost.

Moved that the next meeting be held in Bismarck. Motion prevailed and Bismarck was thus designated as the next place of meeting.

Moved that the association resume the program of the afternoon. Carried.

Prof. Schmidt presented the report of the Committee of Seven, and various phases of this report were discussed by Supt. Sauvain, Miss Lake G. Watson, Supt. Forster and Prof. Selden, in eight-minute speeches.

Mrs. Budlong of the State Library Commission explained the work of the commission in furnishing the "traveling libraries" to those communities making request and giving guarantee of reasonable care in the handling of the libraries.

The session was adjourned.

THURSDAY EVENING.

It was expected that this evening would be devoted to the lecture by Dr. Forbush, but the speaker did not arrive and an informal program was arranged by the presiding officer, Professor Hollis. This consisted of talks by several educators, among whom were W. G. Crocker, better known as "Uncle Will," Prof. James of Valley City, and President Creegan of Fargo College.

FRIDAY MORNING, DECEMBER 31.

Dr. Forbush having arrived during the night, the executive committee decided to call the association together at 11 o'clock for the purpose of hearing his lecture, "The Heart of a Boy." The sectional meeting having given way, the general association was called to order in the high school building at the appointed time and Dr. Forbush delivered the lecture.

FRIDAY AFTERNOON.

The meeting was called to order by President Hollis at 2 o'clock p. m., and opened with prayer by Rev. H. F. Blunt.

The first grade pupils of the Minot schools sang some songs very prettily.

Dr. Forbush gave a forty-minute lecture, "The Education of Princes."

The Committee on Resolutions gave the report given elsewhere in this volume. By motion the report was adopted as made.

The finance committee made the report given elsewhere in this volume, which report was duly adopted.

(Note.—The report of this committee shows a balance in the treasury, but there is no such balance now. The committee audited bills which must be paid and which amount to about \$200. This would leave a deficit of nearly \$50 were it not for a gift of \$50 from the Commercial Club of Minot. This donation makes it possible to have a small balance of five or ten dollars in the treasury.)

A section of rural teachers having been organized, a petition for admission as a department of the N. D. E. A., signed by more than ten active members of said N. D. E. A., was received and the section was admitted as the Department of Rural Education.

A petition signed by twelve active members of the N. D. E. A., asking that the newly organized Department of Industrial Education be admitted as a department of the N. D. E. A., was received and such department was admitted.

The association by vote directed the officers of the Department of Musical Education to hold over for next year and directed the president to appoint a committee to see that a program is provided for the next annual meeting. President Hollis appointed Miss Pett of Minot as such committee.

President McFarland gave the report of the Committee on Necrology, and was directed by vote to put such report in writing for publication in the proceedings.

The association rose and sang "America," and then adjourned.

CLYDE R. TRAVIS,

Secretary N. D. E. A.

REPORT OF THE COMMITTEE OF AUDIT.

Minot, N. D., December 30, 1909.

We, the undersigned committee of audit, wish to state that we have carefully examined the accounts of the offices of treasurer and secretary of the N. D. E. A., and beg leave to report as follows:

RECEIPTS.

| | |
|---------------------------------------|-----------|
| Balance on hand January 1, 1909 | \$ 269.49 |
| Interest on deposits | 11.75 |
| Dues, 1908 | 38.00 |
| Dues, 1909 | 280.25 |
| Dues, 1910 | 1.00 |
| Refund N. E. A. headquarters | 25.00 |
| Total | \$ 625.49 |

DISBURSEMENTS.

| | |
|------------------------------------|-----------|
| N. E. A. dues | \$ 2.00 |
| Expenses Committee of Seven | 196.23 |
| Lecture H. H. Seerley | 66.08 |
| Programs | 45.60 |
| Badges | 28.60 |
| Office expenses secretary | 41.41 |
| Expenses executive committee | 42.32 |
| Salary secretary | 50.00 |
| Expenses treasurer | 6.00 |
| Total | \$ 478.24 |

Balance on hand December 30, 1909 \$ 147.25
Signed December 30, 1909, 9:45 p. m.

J. M. GILLETTE,
W. E. HOOVER,
B. E. GROOM.

TREASURER'S REPORT.

RECEIPTS.

| | |
|---|-----------|
| Balance as per last annual report | \$ 269.49 |
| Interest on deposits | 11.75 |
| Dues, 1908 memberships | 38.00 |
| Dues, 1909 memberships | 280.25 |
| Dues, 1910 memberships | 1.00 |
| Refund N. E. A. headquarters | 25.00 |
| Dues 1909, received after report of finance committee .. | 12.00 |
| Minot Commercial Club, received after report of finance committee | 50.00 |
| Total receipts | \$ 687.49 |

DISBURSEMENTS.

| | |
|--|-----------|
| Irwin Sheppard, N. E. A. membership | \$ 2.00 |
| P. G. Knowlton, expense committee of seven | 10.50 |
| C. C. Schmidt, expense committee of seven | 21.83 |
| New Brown Hotel Co., N. E. A. headquarters | 50.00 |
| President Seerley, fee and expenses | 66.08 |
| A. P. Hollis, expense executive committee | 19.97 |
| W. M. Kern, expense committee of seven | 23.00 |
| C. R. Travis, secretary, salary, office expenses | 119.91 |
| C. Ellithorpe, treasurer, expenses | 6.00 |
| Dr. Forbush, lecture | 150.00 |
| W. A. Godward, expense, committee of seven | 28.60 |
| Herald Printing Co., report committee of seven | 88.00 |
| W. E. Hoover, expense, executive committee | 6.65 |
| P. G. Knowlton, expense, committee of seven | 5.60 |
| B. E. Groom, expense, executive committee | 9.20 |
| E. R. Edwards, expense, executive committee | 6.50 |
| C. C. Schmidt, expense, committee of seven | 10.45 |
| W. G. Crocker, printing programs | 45.60 |
| <hr/> | |
| Total disbursements | \$ 669.89 |
| Cash on hand | 17.60 |
| <hr/> | |
| Total | \$ 687.49 |

Respectfully submitted,

C. ELLITHORPE,

Treasurer.

REPORT OF COMMITTEE ON RESOLUTIONS.

The State Teachers' Association desires to express to the city of Minot its very high appreciation of the hospitality received at the hands of Minot and its citizens during the existence of the twenty third annual session held at that place. The association extends heartiest thanks to the Commercial Club for its consideration, to the representatives of the city for their reception and elaborate entertainment and to the citizens of the city for their uniform kindness and liberality; and wishes to voice its surprise at the rapid development of the northwestern part of the state, and to express its admiration of the importance, vigor and beauty of the city of Minot as the metropolis of this part of North Dakota.

The Association commends and endorses the valuable work the Committee of Seven has done during the past year, and recommends that the Committee of Seven be continued during the coming year to complete its work relative to the elementary schools and to report the same at the next annual meeting; it recommends that in any reconstruction of the elementary course of study, which may be undertaken by the state depart-

ment of public instruction, the principles and suggestions, embodied in the report of the committee of seven, be followed.

We recognize the rural school as the most important factor in the education of the state; that one of the most urgent needs of the times is an improved quality of teachers for the rural schools. (a) We recommend consolidation of the rural school as a means of improvement of school organization and surroundings, and also for the accomplishment of the improvement in the quality of teachers. (b) Owing to the fact that the Normal schools and other state institutions are at present unable to supply an adequate number of trained teachers and that it is certain that it will be many years before these institutions will supply a sufficient number of these teachers; we therefore recommend the preparation of rural school teachers. (c) We are of the opinion that no permanent improvement in the quality of the rural teaching force can be hoped for or expected until there is a marked advancement in the wages paid. (d) We believe that the educational interests of the state would be advanced by making the length of term uniform in both rural and city schools.

We recognize the work that is being done at the Agricultural College, and at the Normal and Industrial school in the preparation of teachers in agriculture, domestic science and mechanic arts, so ably supplementing the efforts of the Normal schools and Teachers' College to keep the supply of efficient instructors somewhat near the demand. The industrial training exhibit arranged for by the Committee of Seven under the direction of Pres. Kern, and through the enterprise of the exhibiting schools, bespeaks our admiration, and will, we are sure, be productive of good results in the teaching of those lines of work in all schools.

We believe that in the interests of fairness the executive committee ought hereafter to arrange the program so that all meetings, sectional and general, be held within the time limit of three days as has been the custom heretofore, and is still the custom in older associations in our neighboring states.

We recognize the need of an educational revival in our state as outlined in our president's annual address and recommend that steps be taken by our state educational department toward that end.

This Association extends its sympathies to Prof. E. A. Ladd, of the Agricultural College in the great loss he has sustained personally, in the destruction by fire of the records of twenty years of arduous labor and research.

The teachers of this association as a body recognize the great worth of our State Superintendent and brother, W. L. Stockwell, and appreciate to the full his consistent labors for the cause of education in North Dakota.

J. M. GILLETTE,
LAURA B. SANDERSON,
GEORGE F. FORSTER,
DANIEL E. WILLARD.

ADDRESSES, PAPERS AND DISCUSSIONS
GIVEN AT THE
STATE EDUCATIONAL ASSOCIATION
MINOT, N. D., DEC. 28-31, 1909

PRESIDENT'S ADDRESS

A. P. HOLLIS, VALLEY CITY.

LADIES AND GENTLEMEN: At my own request I am limited today to fifteen minutes. This will not let me wander far afield. I shall leave the broader reaches of educational problems to others, and will ask your attention to the consideration of what I might call the internal affairs of

OUR OWN STATE ASSOCIATION.

I am glad that in spite of the large majority which voted for a fall date at Valley City last year, the executive committee voted to come to Minot. The association has never met further west than Jamestown. That was twenty-one years ago. The great development that this western country has experienced entitles it to this meeting and many more. But it is unlikely that the Association will come this far west again in a decade at least. I am confident that this is the last session of the North Dakota state teachers' association embracing in its membership but 5 per cent of the teaching force of the state. The day of the 5 per cent association is passed. Its death knell was sounded at Valley City last December. Its funeral could have been celebrated long before this if we did not feel that Minot was entitled to the obsequies. But Minot is to witness not only the demise of the old, but the birth of the new State Teacher's Association. Every other association in a northern state that has changed its date from winter to fall has experienced a sudden expansion. Iowa, Michigan, Wisconsin, South Dakota, Minnesota, have all recently changed to a fall date and all report large accessions to the membership and to the enthusiasm of the teaching body.

THE LAW ALLOWS THE FALL DATE.

The recent law enacted at the last session of the legislature expressly permits school boards, rural and city, to close the schools and allow all teachers who desire to go to the state association to do so on full pay. County and city superintendents should call the attention of the various school boards to this provision and a circular letter from the state department would help greatly. See Chapter 98, Laws of 1909.

This law is a great gain over the present system of breaking home ties during the holidays, with no pay for the break, and only one step more is needed to make the arrangement ideal. It will cost the teacher who lives in Williston \$25 at the least calculation to spend four days in Fargo and pay the necessary railroad fare. Her week's wages will be but half that—and we must not forget that even this half pay is not an addition to her salary, for she would have received that had she stayed at home. In this state of magnificent distances something ought to be done to equalize the advantages of the association for those at a distance.

In Florida the state pays the railroad fares of the teachers one way to institutes. When I attended a normal school in New York state the state paid the railroad fare of resident students one way. An appropriation of \$2,500 would enable the state to pay half the railroad fares of the teachers living out of the county in which the association is held. In the other states mentioned no trouble has been experienced in getting school boards to close the schools at the time of the meeting of the state association. The association is thus put on a par with institute work and has secured a recognition and dignity it has not heretofore enjoyed. When school boards close the schools it will be all but mandatory on the teachers to attend the meetings, as that is the specific purpose for which the schools close, and the reason for allowing teachers full pay during attendance at the association. I predict that the attendance next year will be at least double this, and I should not be surprised if our present attendance were trebled. There are only one or two cities in the state that can accommodate such numbers, and it will mean that the association must perforce confine its meetings to the largest cities in the state, and even then the local committees in the largest cities will have to exert unusual energies to see that ample accommodations are provided.

CONSEQUENCES OF A BIG ASSOCIATION.

It makes the pulse beat quicker to think of some consequences that may flow from a large and truly representative association. The added fees will enable the program committee to augment its list of imported talent. It will be able to bring the leading educators and educationists of the country not only for its general sessions, but for some of the sectional meetings as well. Its larger funds will enable the establishment of more or less permanent committees to gather its statistics and do its investigation. Our Committee of Seven is only one instance of several working committees that ought to be retained for a term of years, each added year utilizing the accumulated experiences of the preceding. Such committee work would be cumulative and lasting. When the membership of the association is from one-fifth to one-tenth the teaching force of the state, the association will become the representative organ of all the teachers of the state and will leap to power, becoming the aggressive educational force of the state to join hands with the state educational department in the reforms that press upon us. Such a big association will create and be the public opinion of the teachers of the state. Those in authority can feel the educational pulse of the state at these big representative gatherings. Two sections of our associations now have committees to co-operate with the state department in securing needed legislation. It would seem that what has been found useful for two sections would be still more useful for the whole association. A legislative committee that could make its appeals with the voice of the whole association back of it, might be an effective instrument at Bismarck. More sections can be added, without harm to existing sections. A rural teachers' section is greatly needed. A commercial section is needed. A congenial group of workers ought to be found here for every kind of teaching done in the state. The school directors' section

ought to accomplish as big a work in educational uplift as any section of the association. Added numbers is going to make it more attractive. We are glad to welcome on the edge of this era of expansion, the two baby sections of the association: The Department of Musical Education, and the Department of Science and Mathematics.

Numbers will give authority. When six or eight hundred teachers speak as one man people will listen. Such numbers and such authority will appeal to teachers outside of the association. It will make them want to get in. A code of ethics can be built up by such a splendid body of teachers that will put the dishonest teacher on the defensive and make for a *esprit de corps* that will mean team work. Every teacher will stand up for every other teacher that will play the game fairly and squarely. The teacher that seeks another's job, by offering cheaper service or by baser slander, the lazy teacher, the self-centered teacher who refuses to co-operate, these all will be rendered more uncomfortable and their position more untenable by the existence of such a strong, well organized body as we may become.

Only this past year have state teachers' associations come to self consciousness. For the first time in history at the Denver meeting of the N. E. A. last June the officers of state teachers' associations got together and looked one another in the face. They looked good to one another. They said, "Why not organize?" The state superintendents of the country are now organized, the governors of different states have formed a national organization; there are association of university presidents of all states, and normal school principals of large groups of states. The association of the officers of state teachers' associations is the latest Richmond in the field. This means the substitution of system for non-system. It means machinery for the exchange of ideas, interchange of literature, and the circuit system of using public speakers for programs. It means more efficient methods of influencing public sentiment for educational progress.

Among the movements which such an association might aid I mention a few:

I. THE EDUCATIONAL REVIVAL.

Most of us are familiar with the phenomena of religious revivals and the psychology that lies back of them. Some of us are familiar with the biennial political revivals, known as political campaigns, and the brass bands, and public meetings and parades that are gotten up to feed the imagination of the multitude. The campaign method that masses effort on strategic points and moves on progressively from center to center in any given area is winning battles to day in temperance campaigns, tuberculosis campaigns and the like. Education should profit by these experiences. While the little droppings wear the stone—though it take ten years—the twentieth century will none of it. It demands speed as a prerequisite for all its machines. The annual resolutions and papers of an educational association are too quiet to attract the attention of the busy public and the body politic is too large a matter to move by such efforts only. These are good and we must continue to use them—here a little and there a little, "inching" along. But the time has come when educators must make use

also of the sharp, quick, snappy ten days Y. M. C. A. campaigns which frequently raise \$100,000 or \$500,000 for their splendid buildings.

The state department and this association might well co-operate toward organizing groups of educational publicists both within and without the state, who would enter one county of the state with such numbers, such equipment and such enthusiasm that the city and country districts touched by the revivalists would be stirred to the depths and upheavals would occur for educational progress comparable to the other great revivals I have mentioned.

Here is a county for instance, going to seed educationally. Only one good modern sanitary high school building out of five in the county; the rest, wooden, decayed, dirty, not ventilated. Only one consolidated country school in the county; the rest small, uninspiring, isolated. Only a half dozen places in the county with artistic walls and pictures. Two-thirds of the school grounds have no fences and no paint; no trees planted; flowers never heard of, not a school garden in the county. Only three or four schools teaching agriculture with the hands as well as the book; no contests organized; educational forces of the county injected with stovaine—paralyzed from the waist down.

What would happen to that county if you let loose upon it, striking half a dozen centers at once, such a group of revivalists as, well, lets say, O. J. Kern of Illinois, teaching beauty and potatoes; Gulick, for health, play grounds and sanitation; Heeter, for an all round dose of educational tonic, not to mention others as well and favorably known. Add to these Stockwell, Kennedy, Gillette, Ladd, Waldron, Randlett, Willard, Smith, Weeks, McFarland, Amidon, Berg, Miller, Gray, Kern and many others equally talented in this state, arrange their times and schedules, give them lanterns, exhibits, and their ability and enthusiasm will do the rest. It may take a two weeks campaign to wheel that county into line, but that line-up would do it, and set the county ten years ahead of itself in two weeks.

I am probably sketching this in impressionistic fashion—but I believe it capable of sane and efficient treatment. It is being done. U. S. Commissioner Brown calls attention to the fact that State Superintendent J. G. Crabbe, of Kentucky, has been conducting a series of whirlwind educational campaigns in that state with the most gratifying results. In one of these campaigns he gave 1,590 addresses in one week himself, but he was assisted by 100 public speakers. Progress in art and music is greatly advanced by the great musical festivals that our leading centers are beginning to hold. The wonderful growth of the Chautauqua movement in this country is partly due to this massing of effort of educational forces.

State educational meetings like this educate teachers—we want a method for educating the public. Women's clubs, parents' associations and institutes, lectures courses, are excellent starting points for this kind of educational propaganda.

Much of our program this week is given over to the consideration of how the school can reach a larger public—and how it can get this public to participate in educational advancement. Our own institution this year

has had the privilege of incipient movements along this line in co-operation with one or two county superintendents. We hope to organize and enlarge this phase of our service to the state.

II. PUBLIC KINDERGARTENS.

So far as I know there is but one public kindergarten in the state of North Dakota, and not until this year has any institution of the state provided training for kindergarten teachers, and yet it is generally acknowledged by educational authorities that the ages between four and six are as critical and as educable as any subsequent periods in the child's life. If the kindergarten were an experiment, we might be pardoned for our tardiness. But it has gained a permanent place in nearly every progressive system of education. Its philosophy is simple—trained teachers of childhood can develop the three departments of a child's being better than untrained parents. Recent legislation in our state permits any school district in the state to maintain a kindergarten by public taxation. (Chap. 103, 1909.) It is the public that needs to be educated.

III. MEDICAL INSPECTION OF SCHOOL CHILDREN.

Scarcely an educational magazine appears today; scarcely an educational report of any sort, but what refers to great advanced steps being taken by school officers all over the country for the medical inspection of school children. I do not know of a half a dozen places in all the state where this is adequately done, or where the public demands it. But childhood demands it and the public would too if the facts of physical handicap were known. Here again it is the inertia of the great public that needs to be overcome.

IV. TEACHERS' PENSIONS.

Country after country, city after city in our own country, university after university, are all providing in divers ways, pensions for aged teachers who have spent their lives in a service largely unrequited. The latest report of the U. S. Commissioner of Education shows that last year the state of Virginia provided for an appropriation of \$5,000 from the state, to be added to a 1 per cent deduction of salaries, together with bequests and legacies. Teachers should no longer live in dread of poorhouses and paupers' graves. There may be theoretic objections to pensions in the minds of those of us in the flush of youth, but it is a God send to those at the other end of the line of life. There seems to be no demand for teachers' pensions in this state, but wherever a campaign has been waged for teachers' pensions, it has won out, which illustrates the fact that the heart of the American public is sound. It is our business and our privilege to show it the facts.

THE EDUCATIONAL OUTLOOK IN NORTH DAKOTA

STATE SUPT. W. L. STOCKWELL.

Your committee, when it assigned to me this topic, evidently felt that, from the vantage ground of more than twenty years experience in educational work in North Dakota, I possibly possessed the gift of prophecy, and would be able to unroll the scroll whereon is written our educational progress in the coming years. When one thinks how little there was twenty years ago and how much there is today, one can scarcely make it all seem true, yet, even today, we have just begun to grow and develop; we are on the threshold of even more splendid achievements, material and educational, for the coming decade, than have been brought forth during the past two decades. The front line of development, in 1889, scarcely extended beyond the Red River Valley, but now the tide of immigration and development has rolled on to the Montana line. The whole state, from east to west, and from the seventh parallel to Canada's domain, has been settled by as sturdy a band of pioneers as ever peopled any commonwealth. It is true that, while they have not all come overland in the prairie schooner but rather on the limited express, they are none the less pioneers. They have brought with them their institutions and their ideals, chief among which is their love for education.

Fortunate, indeed, are we whose lot it has been to help mold and fashion the educational system of North Dakota, yet still more happy will be the work of those who guide the destinies of education in the coming years. Material prosperity is ours in abundance—the blight of ultra-conservatism has not fastened itself upon us and now, in our youth as a state, we are heirs to all that is best and richest in the educational experience of other states.

For the purposes of this discussion, I shall divide the educational interests of this state into four groups: First, those of higher education; second, the secondary school; third, the elementary school of our towns and cities; last and most important, the rural school.

Our institutions of higher education have gotten away from the pinch of poverty generally attendant upon young schools. The field is large enough to allow the development of each institution in its proper sphere. Local jealousies have given place to the broader idea that our institutions belong to the state and not to the locality. The organization of our university and of our agricultural college is quite complete. The professorial chairs are held by strong men, specially trained for their work. The outlook is, in every way, bright, and the prospect full of hope. The growth will be much more rapid, from now on, than it has been in the past few years. The call for support will be much more insistent. There will be, unless it is sternly repressed, a race for numbers at the expense of

quality. Our university must and will stand for the highest development in the realm of academic training. It will stand for the highest ideals of manhood and womanhood, the best type of the trained citizen; there will never be any catering to the idea of bigness. Its faculties must be made up of strong, vigorous, well trained men and women. The blight of the inadequately trained and paid instructor must be rigidly frowned upon. The entrance requirements must recognize preparation and ability to do advanced work rather than any set program of subjects. The cigarette, the bull dog pipe, the turned up trousers, sophomore clothers and other idiosyncracies of dress ought to be strictly tabooed. Students who come to our schools simply to spend money and gain social position should be given no countenance. We look to our university for our leaders in professional and political life, thus our university must, like Old Yale, be the "Mother of Men." The agricultural college, in its field of work, must be equally as effective as our university. The task set before it has to do with all the future material prosperity and development of our state. From it must come men with methods and information which shall yearly add millions to our wealth. It will emphasize the vocational side of education, yet it must, no less than the university, produce that type of men and women and that quality of citizenship which shall glorify our commonwealth and crown our civilization. The achievements of the past are an earnest for the future.

The denominational colleges, which have not, in the past, played a prominent part in the educational life of the state, by reason of the struggle for existence, will be in a position to fill a more important place in our educational economy. Fargo College, inheriting the high ideals of the small college of New England and the middle west, will place its impress upon an increasing number of young men and women each year. Every serious minded educator recognizes the necessity of religious training as a part of any education and cordially welcomes the institutions which furnish it. Wesley College, blazing its way in its affiliation with the state university, will give the religious flavor to a secular institution. The denominational college in this position with reference to the state university has, in my judgment, a distinct advantage over its neighbor who must, of necessity, provide for all collegiate instruction. We believe that, more and more as the years go by, will the denominational college be affiliated with the great and ever growing state universities, and so furnish the solution for the religious element in higher education. The recently reopened Presbyterian College, in Jamestown, after a lapse of nearly twenty years, furnishes, to our way of thinking, a striking example of abiding faith in the educational future of North Dakota. We could but wish that our Presbyterian folk could have followed the statesmanlike course of their Methodist brethren and availed themselves of the equipment for higher education which they, as a part of the commonwealth of North Dakota, have provided at the university. Possibly, however, the more widely distributed are the agencies for higher education, the greater will be the number who will avail themselves of such training.

A word or two with reference to the future work at our normal schools. It must not be long, in fact it will not be long before our normal schools establish the five years normal course and the two year professional course for high school graduates. We cannot afford to be lagging behind our sister states in this regard. We emphasize high standards elsewhere, why not here? We readily recognize the efficient service performed by our normals, yet in the future they must render still greater service in the training of teachers for our elementary schools. Our teachers must be thoroughly grounded in the essentials; definite, accurate knowledge of the subjects taught is sorely needed. The rural school must share abundantly in the finished product of the normal school. Those who train teachers must ever hold up before the teacher the idea of service, that service which is ever demanding more of him who serves. North Dakota needs more trained teachers, always more. More normal schools will give us more teachers. Those other schools now supported by the state would return to the state much greater value for the money expended if they were engaged solely in the work of training teachers. Let us hope that the wisdom of such a transformation may become more and more apparent. Let us hope that when we come again to Minot, we shall meet in the auditorium of a great normal school which shall serve this splendid section of our young state.

That phase of our educational development which has been most marked in the past five years has been found in the secondary schools. Standards in courses of study, equipment, qualification of teachers and quality of work done have been brought up to those of the best states of the middle west. The influence of the high school board and the high school council has been most potent. The outlook for the high schools of our state is full of promise for the future. The number of schools recognized as high schools may not increase as rapidly in the next five years as it has in the past five years, yet, there will be a constant increase in their efficiency. Five years from now, no school will be designated as a high school which does not meet the minimum requirements of a first class school of today. It will be more essentially a fitting school for life. Thoroughness in essentials and efficiency in doing will be emphasized. The college preparatory course will be but one of a half a dozen courses. These courses ought to include the manual training course, the commercial course, the course in domestic economy, the agricultural course, the teacher's training course and an English scientific course. Colleges and universities will more and more, accept preparation rather than a set program of entrance requirements. There is a good deal of loose talk about the ruination of high schools by the college and university. Such talk is unfortunate, yet the time is not far distant when there will be less domination by the higher school than at present. The secondary school is growing in importance; it must, more and more, serve the ever increasing number of students who finish their education, as far as schools are concerned, with the high school. High school graduates must know the common branches thoroughly. The charge that our schools are turning out graduates who cannot add, spell or use correct English, ought not to

be possible. The high school must adjust itself to the demands of the community it serves and, in so far as it does this, will its influence widen and deepen.

The elementary school, that school which, in our towns and cities furnishes ten with the rudiments of education while the high school, college and university furnish one with higher education, has good reason to be proud of its achievements in the past. The thought and effort which is given by trained educators give assurance that the elementary education of the future, in the state, will serve more effectively the children of the commonwealth. The elementary schools of the towns and cities command the services of trained teachers and supervisors. Their present high standard is a matter of congratulation. The general intelligence among the masses of the people is due, alone, to the elementary school. The future will see a process of elimination, carefully carried out as to subject matter now taught, to the end that what is taught will be more effective. There is much in our present day texts in arithmetic, grammar, geography, and history that can, with profit, be left out. The chief aim in arithmetic ought to be accuracy and rapidity in the fundamental operations. Cut out, pare down and then insist that what the child is expected to know he shall know, definitely and thoroughly. That science, technical grammar, will have no place in the elementary school. Language work will be amplified and exalted. Oral and written composition, with the constant study of good English will do the trick. When one stops to think that we expect thirteen to fifteen year old boys and girls to master twenty-five to thirty pages on the uses of the noun and verb, we are compelled to believe that the elementary school of the future will not inflict such hardship on childhood. Greater emphasis will be given, in geography, to that which relates to our home and country. Much of the physical and mathematical will be reserved for the high school. In history, the emphasis will be placed on the growth and development of institutions rather than on battles and wars. The school of the future will deal with children more intelligently, because of a better knowledge of their physical condition. Medical inspection will prevent much wasted effort. Give us physically sound children and there will be fewer laggards, fewer children remaining more than a year in a grade, fewer children dropping out at the fifth and sixth grade because they are behind the pupils of their own age. Industrial training, properly adjusted to the essentials of our present course, will have a permanent place in all grade work. More money will be needed because more and better teachers will be needed, because more equipment will be needed, because more children will remain to be taught than in the past. This means that there must be more money, also a readjustment of our system of taxation. Our present antiquated and inequitable method must give way to a modern, scientific system of taxation. In this every teacher and superintendent is vitally interested, and the struggle, in North Dakota, for such a system, will soon be on.

The last and by far the most important phase of education in North Dakota, is the rural school, where seventy per cent of the children of this state will receive all the education which the school furnishes. With refer-

ence to its outlook, I am full of hope. The past five years have done much. The promise for the future is even greater. The improved methods in farming, the application of science to agriculture, the awakened interest of the farmer in his country and state, the realization that the farm is a good place to raise boys and girls, have all borne in upon the mind of the farmer and of the farmer's wife, the need of a rural school that shall be or the rural child all that the best town or city school is for its child. Many things have, in the past, conspired to prevent as rapid progress in the rural schools as we might desire. First; our state is young; settlement, in its entirety has been the work of the past twenty years. Pioneer conditions do not conduce to most desirable results, educationally. The struggle for bread is the first consideration. Then has come the desire for a competency; then comes, frequently, forgetfulness of the real needs of the school. Second: It is a difficult thing, in this country, to create a compelling public sentiment in favor of our schools. We are glad to say that the public sentiment is growing, its influence is more potent each year. The school officers' meeting has played a splendid part in this movement for better schools. It is safe to say that few school officers have the temerity to advocate the policy of "What was good enough for me is good enough for my children." No, the fact is now universally recognized that the rural school is to play *the* great part in any scheme for the improvement of country life. Today, there is a call for improved school conditions, more attractive grounds, longer terms, better teachers, better supervision, richer courses of study, by a process of elimination of non-essentials and by the introduction of subjects which will more readily fit the rural child for his rural environment, the central school with its school garden, its experimental station and its rural high school. Tomorrow, the demand will be still more insistent for these things and so on, until the goal is reached. I have no doubt about the ultimate success of this movement for better rural schools. The rural school must be the center of rural life. No one need have serious misgivings; there will be times when the faint hearted will say "It is of no avail," but the victory is only to those who press forward to the conflict. The contest will be won when we educators demonstrate that what we stand for makes for more efficient living.

In conclusion, let me say, that taking all due thought for our inertia when organized as a community or state, still the future is full of promise. It is for this great association to hold aloft the banner of educational progress and the torch that points the way. It is for us men and women of North Dakota to consecrate our lives anew to the great work of human enlightenment and progress. It is for us to render *always* such service that, in the end it may be said of each one of us that we have fought the good fight, we have finished the course, we have kept the faith.

RECENT EDUCATIONAL TENDENCIES

BY PRES. FRANK L. M'VEY, UNIVERSITY OF NORTH DAKOTA.

During the past year the usual things have taken place in the field of education. The Carnegie Foundation has made its report; the General Board of Education has distributed its funds; the Country Life Commission has announced its findings; buildings have been erected; donations have been made; and associations have met. But in addition to these activities, criticisms of education and educational methods have been more insistent and more extended than in past years. I therefore propose, in view of the topic that has been assigned me, to discuss the nature of these criticisms, the sources from which they have come, and what constructive steps have been taken to meet them.

Speaking broadly, the statement is made again and again that the schools of today do not prepare the children of the present for the problems of tomorrow. When this criticism is made the author of it usually has in mind some specific interpretation of life. If he be a follower of a trade, he declares that the young people are not trained to work; if he be a minister, he insists that their moral fibre is not strengthened in the public schools; if he is a banker, he claims that the pupils do not develop accuracy; and if he is a manufacturer, he makes bold to say that discipline is not maintained. In the field of the college and university, the criticism is even more specific. Attention is called to the college loafer, to inaccessible professors who are cut off from the undergraduate. It is stated also that there is too little study on the part of the students and too much teaching by the professors. Lowered scholarship as compared with earlier years is also cited as an evidence of the failure of the higher institutions of learning to maintain thoroughgoing standards. In the matter of results from the education of modern times, the criticisms state positively that the methods of work of the children of the public schools and the men and women in the colleges are slovenly and inexact. As a consequence, bad habits in the lack of attention, promptness and punctuality are bred by the present methods of education. In some instances attention is called to the prevalence of cheap views of society, of over-emphasis upon dress, of too numerous engagements, of the establishment of fraternities and sororities as the end and object of education. These things, when grouped together, form the nucleus of the criticisms that are made against present education and educational methods.

The sources from which these criticisms come are many. Journals larded with yellow and sensational in their ways of considering the news, and in the interest of the public an opportunity to present exaggerated statements concerning the educational situation. Disgruntled school officers, either as members of boards, or as former superintendents, principals or instructors, call attention to specific instances of the failure of

the educational system and educational methods to produce the results that are expected of them. Well-meaning but ill-informed reformers, prying here and there in the public archives, and catching a sentence from this and that speaker, build up an imaginary educational organization which stands in their minds as the one that they are criticizing. Parents, seeing in their children the results of bad teaching, after long suffering, have in occasional instances broken forth in invective comments against the text books, school or ventilating system. And occasionally students, good, bad and indifferent, give vent to their opinions concerning the kind of education they ought to have had but did not get. In addition to all of this there are well qualified critics, working inside of the educational organization, who, recognizing the many difficulties, the many inconsistencies, the many points of possible improvement, are, for the benefit of the whole organization, giving vent to their feelings in the matter of improvement. This criticism, coming thus from many sources, is made against the system itself, that democratic as it may be in many ways, nevertheless shows that education in the mass fails to produce scholars and real thinkers. It falls also upon the teachers, poorly trained in some instances, or often frivolous girls who with no special calling to the great profession, attempt for the salary that they receive to give instruction. And again, it falls upon school boards who because of the conservative action of the past refuse to recognize the needs of the present or to prepare for the coming of the morrow. It falls too upon supervising and administering officers, whose view is hampered by personal prejudice, lack of training, inability to see, and little imagination. If the great body of teachers in university and college and public school was of this character, well might the criticism be made. But underneath it all there is a genuine soundness of principle and of organization that despite the defects that may be pointed out is still to be found in the public school system of America. It is doing the business. It meets the need in some measure, and it is alive to the demands that are being made upon it.

But with so many criticisms, it would be but natural that many remedies and some panaceas should be offered by the various persons interested in the welfare of the school. It may be said in passing, however, that a remedy or a panacea offered for any large number of ills is in the very nature of things something that should be regarded with suspicion. It is declared by some that the difficulty is in the text book, and that if we had a complete change of text-books in the public schools, great results would be brought about, and that the better instruction and higher points of view would be noticeable in the pupils. Others there are who declare that more hand work should be done, that the eye and the muscles should be trained so as to express in material form the image of the mind. Still others insist that the difficulty is in the field of physical training, that with awakened bodies we would have awakened minds; and some there be who call upon the public schools for a better moral training, insisting that here particularly is the defect. Others call attention to the need of music. Here and there rifle practice and military drill are introduced into the public school for the purpose of arousing interest. All are usually agreed that

we need better teachers, teachers with more inspiration and more training, and in the field of the college it is demanded that a reorganization of courses, particularly as applied to freshmen and sophomores, should be brought about, and that if more emphasis were placed upon the life of students, upon their moral and social activities, remarkable results would be produced. Numerous associations have been organized, some during the past year, that have for their purpose specific aims, the bringing together of persons especially interested in some one topic, but in most cases the result of such organizations is an over emphasis of special plans and special schemes in the organization of educational work.

It must be remembered, however, that there is a natural limit to many of these things, that it is impossible in the time allotted to the schools to give the broad, large training that is now being called for from many sides. The public schools have the pupil five or six hours in the day, the home and the street have him the rest of the time. It must therefore be expected that the responsibility should be shared with the school by the home and by the municipality or the community in which the pupil lives. In all of these plans and suggestions for improvement the personality of the teacher is the greatest factor and must always be the greatest element in the instruction of youth.

But despite the criticism that has been so marked in the past year, there perhaps has never been a year in the history of education when more constructive work has been done. Increased emphasis has been placed upon public health, and especially upon the health of school children. The National Health Association of America has secured the attention of congress and has attempted to interest thousands of people throughout the country in the importance of health as a national asset. In addition to this general movement, here and there special attention has been given to school children and attempt made through medical examination to ascertain defects before they have reached the stage of being incurable. Under the principle of the medical examination of school children many a child will be saved to the future in its full mental and physical power, with a resultant increase of benefit to the nation as a whole.

Much emphasis has been placed upon vocational training, and little by little we are coming to understand the distinction between manual training and training for the trades. We are beginning to understand also that it may be unwise for a public school system to attempt to develop specific training for specific trades. It is not yet clear that an attempt is not really being made in this country to tie the young people to industry before they are really ready for it. We have heard in some of the educational meetings sentiments expressed to the effect that compulsory education should stop at the fifteenth year, and that as a consequence of this trade schools should be organized for the purpose of giving training in specific industries between the twelfth and fifteenth year. Here is brought out in sharp contrast the difference between the wants of the industry and the needs of the boy and girl. There is no question but that the child who is compelled to determine at the immature age of fifteen what his profession or his occupation or his industry is to be will make a mistake. It

is therefore essential that in emphasizing vocational training we should have a clear view of its full meaning. If, when we use the term, we have reference to training along broad lines rather than specific ones, then all aid and encouragement should be given to the movement, for it is distinctly educational; but if, on the other hand, it is to mean the tying of a group of young people to a specific trade before they are ready for it, it should by all means be kept out of the educational system.

More and more emphasis is being placed upon moral education, and rightly so. This may be due to a number of influences, the awakening of the church, the discoveries of the juvenile court, and the general appreciation of what is meant by the effect of environment upon young people, had their place in bringing the question of moral education into greater prominence. New meaning is now given to civic ideals, what is right and what is wrong, and it is now generally understood by teachers of insight and understanding that it is possible through the use of the institutions that surround us to teach ideals that lead to the highest type of moral education.

In the field of college and university some progress has been made in the work of the committee on standards, as shown particularly in the organization of the National Association of State Universities. Through this committee it is now clearly understood what a university is, what a college is, and what a school is, and what requirements should be set up for each of them. Moreover, greater stress is now being placed upon freshman and sophomore work, with the insistence that these years should be really a continuation of the work done in the four year high schools.

With this statement of the situation we are confronted with the problem itself. The education of fifteen millions of school children is at the very best a very difficult question. Attention has been called again and again to the fact that the schools of today are not as efficient as they used to be. If this statement were true, and I do not in any degree believe it, there is a sufficient reason for it. To say the least, the numbers of pupils today are larger and more varied than they were in the earlier years; the elements of race and nationality are more marked, and the home, which was in the older time the complete environment of the youngster, is in some degree less efficient than it was then. The burden on the school is greater and heavier than it has ever been and more is expected of it in very direction. The defects which are now apparent to every thinking person can be readily summarized under four different heads:

First, lack of funds to meet the demands now made upon the public school system.

Second, an insufficient supply of well-trained and thoroughly equipped teachers.

Third, the absence of clear view as to specific questions and problems.

Fourth, the presence of conservative and over-reluctant school boards in too many of our communities.

All of these difficulties can be corrected, but it takes time. The first of them that must be met is the one that I have enumerated as third, namely, the absence of clear views as to specific questions and problems.

The tendency in the discussion of modern educational questions is to follow the weight of opinion and inclination rather than knowledge. The teacher is bound by his everyday work and by the demands that are made upon him to make the machine go; but aside from this he has not the information or the facilities of investigation at hand, and as a consequence he is confronted constantly by the necessity of dealing with big questions without a sufficient basis for their discussion. The way out of this difficulty, then, seems to be to investigate and secure information. In this task the school master should have the assistance of the university and the educational association; the first in the collection and tabulation of information, and the second through committees and special reports, such as that just made by the Committee of Seven. Meantime, the teacher must insist upon more thorough work in the presentation of information, and in the drill through repetition of the work that has been done, and in the encouragement of the students to think. Enlargement of interest can be secured through the introduction of manual training, of domestic science, of agriculture, and of the regular sciences, as well as by a larger interpretation of the meaning of social environment in connection with the study of history.

The school system seeks two things—the encouragement of genius, and the ability to think clearly and forcibly with a thorough drill in the presentation of idea in accurate language. The accomplishment of these ends would make it possible to attain the education defined by Emerson when he says: "The great object of education should be commensurate with the object of life. It should be a moral one, to teach self-trust, to inspire the youthful man with an interest in himself, with a curiosity touching his own nature, to acquaint him with the resources of his mind and to teach him that there is all his strength, and to inflame him with a piety toward the great mind in which he lives."

Marked by the milestone of progress, the year 1909 has made its contribution toward better things and to a real constructive progress in the development of education. It remains for us here in North Dakota to keep clearly before us ideas that are thoroughly understood and recognized as having true value. It is sometimes possible to move forward in too great haste. It is better to know where we are going before we adopt any considerable number of the many half-baked ideas that are thrust forward as educational panaceas in the present day.

REPORT OF COMMITTEE OF SEVEN

On Adjustment of Educational Work in North Dakota with Reference to the Needs of the Times.

THE ELEMENTARY SCHOOLS.

To the North Dakota Educational Association:

The undersigned committee has the honor to submit the following report on the Adjustment of Elementary School Work to the needs of the children of North Dakota:

C. C. SCHMIDT, *Chairman.*

W. M. KERN,

D. E. WILLARD,

T. A. HILLYER,

W. A. GODWARD,

B. A. WALLACE,

P. G. KNOWLTON,

Committee.

Historical Statement.

At a joint session of the Departments of Secondary and of Higher and Professional Education of the N. D. E. A. held in Grand Forks January 3, 1908, a motion was carried to appoint a committee of seven "to formulate a plan of adjustment of educational work in this state, and make a report of progress at the next meeting of the N. D. E. A., and make a final report as soon as possible." The committee appointed consisted of Prof. C. C. Schmidt, State University, Chairman; State Supt. W. L. Stockwell, Bismarck; Prof. D. E. Willard, Agricultural College; Pres. Thos. A. Hillyer, State Normal School, Mayville; Supt. W. A. Godward, Devils Lake; Prof. P. G. Knowlton, Fargo College; County Supt. B. A. Wallace, Hillsboro.

In accordance with its instructions this committee made a preliminary report in October, 1908, and the questions it raised were made the basis of part of the discussions of the holiday meeting of the state association at Valley City. The committee wishes to express its appreciation of these excellent discussions, and its indebtedness for many suggestions thus received for this year's work.

One of the resolutions adopted at this meeting made the Committee of Seven a committee of the state association, and instructed it to emphasize for the coming year the problem of the elementary schools, with a view to definite recommendations in this line at least, at the next association. Before the beginning of the work on this topic, however, the committee received a letter from State Superintendent Stockwell stating that the pres-

sure of other duties would prevent his devoting the time to the committee's work that he would wish to if a member, and offering his resignation. Accordingly, the committee accepted his resignation, and asked Pres. Wm. M. Kern, of the Normal-Industrial School, to take the place thus made vacant. This President Kern consented to do.

The committee has had five meetings of a full day each; numerous letters have been interchanged between the individual members, and each has devoted many hours to the formulation of the particular part assigned to him. But we realize the incompleteness of our work and the many important things yet to be done. We should especially have liked to include some thoughts on the vexed problem of the monthly examinations, the equipment of the school, and the school as a social center and a factor in rural improvement. We hope, however, that this contribution may be of some slight service in advancing the cause of education in North Dakota.

Authorship.

The various parts of the report have been discussed in committee so that they express its views in regard to their chief propositions and recommendations. The organization, the details, and the wording are of course the work of individual writers. Thinking that possibly some readers would be interested in knowing who these authors are, we give the names below:

Introduction to Educational Aims—Prof. Schmidt.

Physical Education—Pres. Kern.

Vocational Education—Prof. Schmidt.

Culture and Discipline—Supt. Godward.

Civic and Moral Education—Pres. Hillyer.

Religion in the Elementary School—Prof. Knowlton.

Introduction to Course of Study Recommendations—Supt. Wallace.

The Course in Arithmetic—Prof. Schmidt.

The Course in Reading—Prof. Knowlton.

The Course in Language—Supt. Wallace.

The Course in History—Pres. Hillyer.

Social Studies other than History—Contributed by Prof. Gillette.

The Course in Geography, Nature Study and Agriculture—Supt. Godward.

Manual Training and Domestic Science in the Elementary School—Pres. Kern.

Preparation of Teachers—Pres. Hillyer.

Improvement of Teachers Already in the Service—Pres. Kern.

Supervision—Supt. Wallace.

I. EDUCATIONAL AIMS.

Introduction.

It seems that no discussions of educational adjustment can be carried on without giving consideration to the true and proper end of education, and thus our committee, although it took for its task the course of study for elementary schools, felt obliged to give much attention to educational theory. Ordinarily courses of study and educational practices are copied from others who in turn have borrowed them from some one else. But

in such a task as the present one tradition or custom cannot be taken as a guide. The committee has considered what should be the aims of education, and then has tried to determine the content and form of the curriculum by means of which those ends might be reached.

The committee holds the belief that most of the aims of education that have been exploited by the older educational theorists are ultra-individualistic, and take too little account of the needs, interests, and obligations of man as a member of society. The committee believes that the more recent phrase, "the development of the socially efficient individual" is the most satisfactory statement of the dominant aim of education, and to realize that aim man's physical, vocational, cultural, civic and moral, and religious interests are sufficiently important to demand distinct recognition. These terms are here used in the popular sense and are not meant to be mutually exclusive. The articles which follow briefly discuss the nature, relative value, importance and bearing of each of these great factors in the aim of education. These articles are written by the members named elsewhere, and were then discussed and revised so as to express the views of the whole committee. By way of introduction we desire here to call attention to a few of their salient points.

The Physical Well-being. Here the greatest need is to remove the emphasis from theory and place it upon practice. The state laws have rigidly required instruction in physiology and hygiene for many years, and teachers have been compelled to explain the principles of lighting, heating, ventilating and cleanliness, while the pupils listening to this instruction are housed in buildings that violate every one of these same principles. The precepts of the teachers are thus pretty effectually nullified by the example of the school authorities; and, besides, the pupil suffers the result of bad air, poor light, filthy outhouses, etc. Far more good would be accomplished by reversing the situation: providing proper sanitary conditions and omitting the instructions. But, of course, nobody wants to omit the instruction. There is only one sensible course open; improve conditions and bring them into harmony with the principles that we are already required to teach.

The Vocational Aim. The agitation for a more practical education is as wide as the country and has been carried on for several years by all bodies of educators from the National Educational Association down. It should be noticed that some adjustments in harmony with the demands are being made in spots in many parts of the country, and it seems safe to predict that sooner or later some reform in this direction will be accomplished universally. The question with North Dakota educators should no longer be, Shall our schools give more vocational education? but, What type of vocational education is it feasible for us to offer, and how can we overcome the numerous difficulties and problems connected therewith?

The committee does not share the fear which is sometimes expressed that the movement for a more practical education may go too far. In theory, of course, all our school work might be made a very narrow training in the barest routine or technique of certain vocations and the adoption of such a program this committee would deplore. But the practical school

administrator knows too well that the obstacles to the introduction of even a modest amount of vocational training for elementary and high school pupils are so great as to be almost insurmountable. And first of all there is the well-known conservatism of the educational public which holds the curriculum to traditional lines with such tenacity that it is usually many years behind the actual needs of the time. We cannot conceive how this conservatism would ever allow a general educational reform to go too far. Then there are the practical difficulties to be overcome: securing teachers for these newer lines, and providing the necessary room and equipment. All of this requires much time and money, for it should be recognized that all kinds of vocational or practical education are of necessity more expensive than the ordinary type of school work.

We are not in favor of vocational training solely because it ought to produce greater vocational efficiency, but because we believe it is one of the best means of training the mind. It is one of the best means because the learner here studies the things that are found in his environment, that come within his experience, and by which he expects to live.

Formal Discipline. The committee believes that mental discipline is of highest importance as a factor in school work, but that there are several current conceptions regarding the nature of this discipline which present-day educational psychology does not sustain. (See Prof. Hollis, "The Doctrine of Formal Discipline.") According to one of these conceptions, power which results from exercise upon one kind of mental task is usable in all other kinds of mental effort. We believe that this power is transferable only in so far as the new problem has elements in common with the problem upon which the power was developed. Another notion maintains that certain school subjects have a practical monopoly of the efficacy for discipline, and that other studies are comparatively valueless for that purpose. Some people have even gone so far as to maintain that the disciplinary value of a subject is inversely proportional to its utility value. The committee believes that each study in the school course, or now proposed for the school course, is capable of yielding a discipline more or less peculiar to itself; that aside from this the inherent disciplinary value of a subject is independent of its utility value; but that many pupils are more liable to pursue the "practical" subjects with the necessary earnestness to afford good discipline than in case of those that appear "useless" to them.

The older notions concerning mental discipline have often been advanced effectively in defending the retention in the curriculum of subjects or topics which for other reasons might have been eliminated. Now, it seems to the committee that while the power that results from discipline is of utmost value it nevertheless occupies the position of a "by-product," and we therefore recommend that no subject or topic should be placed in the course of study or retained there solely, or even chiefly, on the plea that it is "good for discipline."

Culture. Perhaps no other term in the vocabulary of educational literature is used with such looseness of meaning as the word culture, and we believe that many a false educational policy is pursued under the vague

notion that somehow it is necessary for "culture." Let it be noted that culture is a composite made up of all the acquired qualities and attitudes of mind and body, and that the qualities and attitudes desired can only be cultivated or developed by discriminating exercise.

Moreover, men's concept of an ideal culture varies with the particular social group that passes judgment upon it, and our own ideal should not be borrowed from other races and other times; for, as President Eliot says in the *New Definition of the Cultivated Man*, "The cultivated man of today is, or ought to be, a distinctly different creature from the cultivated man of a century ago." It therefore behooves the thoughtful educator to remember that while his ideal may have an ancient and honorable lineage it may not necessarily be the best that can be bestowed upon the next generation for, "The educational readjustment of today is reaching out for newer types of culture." (Prof. A. D. Weeks,—"*General Culture and Culture Subjects*.") Among the desirable qualities or attitudes that should be cultivated are physical health and grace, intellectual interest in all knowledge, love of truth and righteousness, broad sympathy, refinement of the emotional and esthetic nature, industry, morality and religion.

It will be seen that culture includes a good part of what is said under other educational aims in this article. It is probable that even the limits here imposed upon the term are unwarranted by the usage of the best authorities, and that the only scientific definition which is consistent is the one used by Superintendent Godward in his discussion which follows. He makes culture embrace everything that results from cultivation, including knowledge, power and skill,—all the fruits of education. The ideal culture then is the composite of all such qualities, attitudes, tendencies, knowledge power, skill, etc., as are desirable. Culture in that sense, no one will deny, comprehends the whole end of education.

The Moral and Civic Aim. The work in this category should be broadened so as to embrace a more comprehensive study of man's social relations, with the emphasis laid upon his immediate social environment. There should be more systematic instruction as to the interdependence of all the members of one social group and as between one group and another, and from this relation the genesis of moral and civil laws should be traced. Our instruction in civil government is now too exclusively a study of the machinery of government without any attempt to show the necessity or wisdom of such provisions as we find. In the elementary school period at least, it is more important to cultivate the right attitude toward law by showing its moral basis than that children should commit to memory a great multiplicity of statutory or constitutional provisions for district, city, county, state and nation.

Religion. A reverential attitude toward sacred things should be shown by the teacher, and inculcated in the pupil. Literature and science and other subjects in the regular school routine furnish excellent texts for this purpose. But formal instruction in religion in the public schools the committee thinks would be inconsistent with the spirit of American institutions.

The Physical Well-Being of the Child; Sanitary Conditions of the School; Physical Training; Instruction in Hygiene.

The high pressure and keen competition of modern life determine the value of bodily endurance. Other things equal, the "good animal" wins. A robust physique is desirable for both boys and girls. *Mena sana in corpore sano* comprehends the sum of all educational wisdom.

I. Under the physical well-being of the child must be included:

- (1) Improved methods of heating, lighting and ventilating.
- (2) Proper wardrobe facilities.
- (3) Adjustable school furniture.
- (4) Proper seating with reference to seeing and hearing.
- (5) Playgrounds that give opportunity for free and unrestrained exercise. No child can learn well or grow mentally who is in bodily discomfort.

II. Sanitary conditions of the school:

(1) Unsanitary school conditions are found in both country and city; chiefly in the country and small towns.

(2) Such conditions may be attributed to poorly constructed buildings; unsuitable furniture which cramps and distorts the growing body; heating systems which result in an atmosphere alternately too hot and too cold; impure and poisonous air due to the lack of ventilation; poor light which impairs sight; dirty floors, walls and desks, due to cheap and inefficient janitor service; impure drinking water and lack of suitable lavatory facilities resulting in the spread of contagion; filthy outhouses which are a source of physical, mental and moral defilement.

III. Physical Training:

(a) Because of the sedentary nature of school life three general ill results are likely to follow:

(1) Because of the lack of muscular activity the nutritive processes—digestion, circulation and respiration—are liable to become weakened and deranged.

(2) Owing to the weakened and deranged nutritive processes and owing to long detention in a relaxed sitting posture, correct bodily posture including erect carriage and proper chest and shoulder development, is lost in a large number of cases. Owing to the fact that the school period is the growing period habits of posture and carriage tend to cast the structure into permanent form.

(3) Because of the weakened nutritive processes and because of the suppression of the child's spontaneous desire for muscular activity, the mental development which results so largely from physical control is impaired.

(b) Neuro-muscular expression has become a prominent feature in many branches of education as manual and industrial training bear evidence. The recognition of the necessity for motor education has become universal. When the instinct for activity is suppressed the motor mechanism is weakened and the will enfeebled at the very time when it should be forming habits for life.

(c) Physical exercises are imperative to overcome the ill effects named above, to stimulate the nutritive functions, to correct bodily posture and to train the mental powers, especially the will.

(d) The forms of exercise should have a nutritive, postural and psychological effect.

(e) Out-of-door sports, plays and games, contribute vastly towards counteracting the above evil; they are the "divinely appointed" means to physical development. Recess should be restored to its original position.

(f) If possible a fully equipped gymnasium should be connected with every school. Light gymnastics, however, can never become a substitute for out-of-door plays and sports.

IV. Instruction in Hygiene:

Man, being subject to the same organic laws as the lower orders, should share with them in the wisdom devoted to physical development. His body is designed as the "temple of the living God." Perfect health may be maintained through observing God's health laws. These laws are of the utmost importance and are as divine as any others God has ordained for man's welfare. Sane missionaries now begin with teaching God's laws of health. Modern benevolence goes out in trying first to improve man physically. Your committee agrees—

(1) That physiology, as commonly taught, concerns itself too exclusively with the effects of stimulants and narcotics often set forth in language that repels many of the most thoughtful children instead of convincing them.

(2) That the obvious hygienic laws that relate to clothing, proper bathing, eating, wholesome food and drink, and the necessary bodily functions, should be emphasized.

(3) That the teacher, principal or superintendent, is to be judged, in part, by the hygienic, sanitary and consequent moral surroundings observed upon the school premises of which he is master.

RECOMMENDATIONS.

(1) The state should provide school districts, free of charge, with printed specifications for the construction, erection and equipment of modern school houses, and then require that all new school houses come up to the standard thus set.

(2) If possible, the law should be so amended as to put a premium, in the form of a grant, upon the erection and maintenance of model rural and village school houses with effective sanitary, physical and hygienic provisions.

(3) School buildings which are conspicuously below a reasonable standard in regard to heating, ventilating, lighting and cleanliness should be inspected by competent experts; and if condemned by the same the state should require proper improvements to be made.

Vocational Education.

By the term vocational education we mean that part of a system of education which takes cognizance of the calling upon which the learner is liable to enter in the future, and makes some provision for it. The plan

adopted in making this provision may have in view a narrow line of training in the technique of one specific calling to the exclusion of all other interests as is illustrated in case of the trade school or in the usual type of the private business college; or, on the other hand, it may provide a broad curriculum in which the training in the technique of the vocation in view forms but a part of the entire work of the pupil. For example, in the commercial high schools or technical high schools found in our larger cities, the training which distinctively prepares for a business life in the one case or for an industrial occupation in the other, occupies no more than one-fourth to one-half of the student's time, the rest of the time being devoted to the acquisition of a broader basis of scholarship in related fields, to general preparation for intelligent citizenship and to realizing other aims of education. Thus far industrial schools of the secondary grade are very uncommon in this country, and in this state the time does not seem to be ripe for their establishment as a regular part of our local school systems. Diversified industry is the rule in all North Dakota communities, and it is desirable that this diversification may continue to prevail. A difficult problem would therefore arise in adapting highly specialized schools to local conditions. But a more general type of vocational education has developed in a variety of forms. In this category belong the manual training, domestic arts and commercial and agricultural subjects of our high schools. The work in these same lines in the elementary schools is even less specialized, but all these branches give a general ground work for the vocations of the masses of our people, and they possess the further merit that they will function efficiently as disciplinary and cultural subjects for those pupils who may continue their education and eventually engage in callings other than at first contemplated.

Vocational education may be given in schools avowedly organized for the purpose of training for some specific calling as in the case of the trade school, business college, normal school, law school, medical college, engineering college, and theological seminary; or it may be given in the ordinary public schools by offering as a part of the program commercial subjects for business men, manual training for the manual industries, Latin for the learned professions, pedagogy for teachers, domestic science for housemakers, etc. The school may make full provision for completing the student's technical training so that when he leaves it he is prepared to enter upon the duties of his calling as is done in the vocational schools just mentioned, or it may merely lay a general foundation such as good courses in manual training give for the manual industries, as school courses in agriculture give for farming, or the traditional college, preparatory curriculum for subsequent courses for the learned professions.

The main lines of vocational education that we have in mind may be classified as, (1) professional, (2) commercial, (3) industrial, including agricultural, and (4) the household arts or domestic education. Those divisions, of course, are not rigid or mutually exclusive.

Nearly all education above the elementary has a distinct vocational bent. "The subjects taught by the schools, ostensibly cultural, have often assumed vocational characteristics. Thus, reading, writing, arithmetic,

geography and music, may be made to so deliberately minister to self-support as to become truly vocational subjects; and similarly, drawing, manual training and science instruction may have content and method determined by practical considerations so as to be properly defined as vocational. Beyond these come those forms of teaching, as in the commercial and trades subjects in which every step is regulated by the necessities of the calling." (Dutton and Snedden, Administration of Public Education in the United States.) The curriculum of the old American academy was avowedly designed to lay a proper foundation for the learned professions for which the students were aiming; and, though the traditional curriculum of the academy has been modified somewhat in the modern high school and its vocational aim is now usually repudiated, it still remains true that every high school in North Dakota continues to lay the necessary foundation for the learned professions, while but few offer work that is equally fundamental for the business man, the mechanic or the farmer.

No hard and fast distinction can be drawn between vocational and non-vocational subjects. The great difference between them is that certain studies have preparation for self-support as their immediate aim; while others merely serve as a suitable foundation to be built upon, generally in a long process extending over many years, and if this process is not completed then these courses usually fail to function efficiently for vocational purposes. So it is with the so-called cultural subjects. Not one of them is so exclusively "cultural" that it may not be used for earning a livelihood; even the fine arts are not exempt from this. A study that is "cultural" for one pupil may be "vocational" for another.

The committee are in favor of the present movement in this state for more ample provision in our school system for vocational education, but we do not restrict the term vocational education to a narrow line of training in the technique of one specific calling, as has been done by some writers. In fact we should strive to make the vocational training of our citizens as broad as their time will permit, while not neglecting the acquisition of thorough skill. We believe in such correlation of the vocational and the various other aims of education as is calculated to meet the demands of society, "That each adult, within the limits of his capacity, shall be physically well, shall be vocationally capable, shall have civic and moral insight and motive, and shall keep alive some cultural and esthetic interests." (Dutton and Snedden.)

We furthermore feel, that vocational education should be provided at various stages of advancement throughout our public school system; some provision for vocational education should be made for the boy who cannot attend school beyond the age of fourteen or sixteen. Again, provision of this kind should be made for the boy who is able to go through the high school but who cannot continue his education beyond that limit; and then vocational education should be given in schools of college rank, such as we now have in the case of the colleges of engineering, law and medicine that admit students who have just graduated from the high school; and lastly, there should be, and there is, a grade of vocational

education provided for those who are able to complete a course in the college of liberal arts before entering upon a technical preparation for their calling. But it is obvious that but a very small fraction of our people can postpone their vocational preparation until they have finished the ordinary college curriculum. To refuse to let young people enter upon their vocational education until after they have finished a college course or even a high school course is to refuse such education altogether to the great masses of our citizens.

Speaking for the rural schools in particular now, we feel that they should offer preparation to their pupils for the calling of the farmer and of the farmer's wife; this implies that the boy should be taught the principles that govern soil management, and plant and animal growth, in order to help him solve the problem of how to secure the largest crops at the least cost and yet maintain the fertility of the soil. But while insisting on this, we would also provide for him a sufficient commercial education to handle the business phases of his occupation. We would also have him familiar with some of the problems of government and economics so as to understand the relation of agriculture to other industries and to such things as railroad rates, tariff and taxation. We would endeavor to imbue him with civic righteousness and an appreciation of the duties that are incumbent upon all intelligent citizens as patriotic members of organized society. We would also have him interested in the study of social problems, especially those that affect the farmer, his social life, his school facilities, church privileges, etc. We would also make provision for his spiritual life and cultivate an interest in and a taste for the beautiful in nature, art and literature, and a sympathy with all that makes modern civilization worth while. And with it all we would endeavor to create in the school an abiding faith in agriculture, a better attitude toward the farmer's occupation, an interest in the betterment of rural life and an appreciation of the many advantages of residence in the open country.

We maintain that such a scheme of education, which is based upon the environment of the pupil, is calculated to be most effective from every point of view; and that in case a pupil thus trained should leave the farm subsequently, to take up the life of a business man or professional man, there would be nothing to regret; for his education would be the best that could be devised for him while residing in the country, whether he remained there or subsequently moved to the city.

For the elementary schools of the city we feel that the details of the curriculum should vary somewhat from those for the rural schools. We are not referring now to our smaller towns which are virtually rural communities, but to the cities which are really urban in their nature. In such schools the environment is quite different from that of rural schools and the probability that the pupil will eventually follow the farmer's calling is very small. His interests also will therefore be different. Many of the people about him are engaged in building operations involving a variety of manual industries and another great portion of the population are interested in business enterprises. For the vocational phases

of the school work of these children, therefore, we would provide an introduction to manual industry, to business methods, and domestic arts, all merging into practical lines of manual training, commercial education, and domestic economy in the grammar grades and high school.

It will be observed that this outline for vocational training includes the girls and takes into account the fact that practically all of them will sometime in the future take up the calling of homemakers. We, therefore, provide training in domestic art and science. This, in the main, would be the same for the girls in the rural school as in the city school, though in the former a few things, like dairying, might receive more emphasis than in the latter.

The committee believes that the "tools of learning,"—reading, writing, spelling, arithmetic, etc., are needed by all people in all vocations; and they must remain the chief concern, and take up the greater part of the time, in the elementary school, especially in the lower grades. But they need not monopolize the whole time. Many unessentials may be eliminated and ample room may thus be made for all the distinctively vocational work that it is feasible to do here. This must generally be limited, as implied above, to elementary agriculture, elementary manual training and domestic arts. If anything more specialized is attempted it should be confined to the grammar grades and even there it can be offered only under the most favorable circumstances.

But even with the elementary work here mentioned the teacher should be able to keep before the child more prominently than at present, the fact that he must in school hope and endeavor to make some preparation for his future calling. We insist that the school and the home shall be brought closer together than they are at present, by occupying the child while at school for at least a portion of his time in studying the problems that the family life is concerned with.

RECOMMENDATIONS.

1. We recommend that more provision be made for vocational education than we find in our schools at present.

2. That this provision be made in the public schools, both elementary and secondary, and it should include agriculture, manual training and mechanical drawing, domestic science and domestic art, commercial training, pedagogy, and a practical treatment of natural science; and retain also a reasonable number of such subjects as are considered fundamental for the learned professions. It is not implied, of course, that all schools should introduce all these lines of work. Which subjects are selected by a given school will depend upon the dominant local interests and upon the teaching staff and equipment of the school.

3. That when a highly specialized type of training in specific trades is introduced it should be the outgrowth of well developed manual training courses, and such trade courses are not deemed feasible for our smaller towns at the present time. That for the present, a few trade schools connected with some of our state institutions, and a few agricultural schools connected with some of the state experiment stations would supply our needs, and serve to show the possibilities of this kind of schools.

4. That, in general, our schools should lay more stress upon the idea that the pupil is preparing himself for earning an honest living, and shall offer him every possible opportunity for determining what particular calling he is best adapted for, and for securing at least some general training for the same.

Culture and Discipline.

I. CULTURE.

If there is a chameleon in the English language it is the term culture which takes its hues and shades from the age, the people, the very individual who is found with the word on his lips. If it were merely a matter of curiosity that prompts us to discuss this subject we should surely stop to examine the character of the age, the people and the individuals who reveal themselves through the meaning which they give to this magic word, but it is more than our interest in the reflections of the past (which are so plainly visible in this mirror of men's ideas) that leads us to pursue this fleeting term. It is the interest which we feel in the present and the future, for not only has this many hued term the power to reveal to us the character of the users of the term but to a large measure man's concept of culture makes that character what it has been, what it is, and what it will be.

Whatever the concept of culture has been at any time there has always been connected with that concept the idea that this culture contained the best things to be desired in education and in life. It is this power of the idea of culture to make or limit the civilization of an age that prompts us to write this paper, reinforced, let us confess, by the belief that our present conception of culture is excluding some new and desirable acquisitions which would greatly contribute to social and individual progress.

One cannot note these peculiarities and consequent results of the idea of culture without wondering if there is not some rational basis on which a true concept of culture might be founded, a basis which would admit the new and desirable culture and prevent the false emphasis which leads to the esoteric, the degenerate, the fanatic, or worse yet to stagnation.

Before attempting to find this basis let us assume the definition which all users of the term assume, that culture connotes the highly desirable qualities of mind and body, and then if we can find the basis for determining the desirability we can come close to forming a rational working conception of the meaning of culture.

In seeking for the most primary basis of values in human qualities, powers or acquired tendencies, I can think of no basis more fundamental than the basis of persistence. Surely no quality, power or tendency which tended to destroy the individual or the social organism could be rationally considered as a desirable culture. This is fundamental, and if the mind could foresee all the conditions under which the individual is to live and comprehend all the working out of cause and effect in the relationship of the individual to his physical, social and spiritual environment, this test

of persistence would be the only basis necessary on which to found a rational conception of the desirable in culture. This, of course, is not entirely possible, but so far as the mind can foresee these conditions and relations this test is fundamental.

But where the primary test is not available to us because of lack of knowledge, we are provided with a secondary test, which is not so accurate as the former would be but in many cases this secondary test is all that we have and it has the further advantage of including the conscious data, as we may call them, for estimating the values of qualities, powers and activities of the organism. This secondary test is proximate because it is itself a derivative, to some extent, of the conditions and relationships of the past and hence a true guide only in so far as these conditions and relations are like those of the future. This secondary test is the sense of satisfaction.

Let no one say that these tests are materialistic, for the former takes into account the whole relationship of man to God's universe and the second includes quality as well as quantity, duty as well as pleasure, spiritual as well as material satisfaction. It is no part of the purpose of these discussions to harmonize philosophically these senses of satisfaction but to employ them as we find them, only taking care to apply them rationally and scientifically.

If these bases of the desirability of culture are accepted, we may say that within the limits of our term will be included all of those qualities, powers and tendencies which best fit the individual and the social organism to persist and which will render the greatest satisfaction to the individual. It will be noticed that we say best fit the individual to persist and render the greatest satisfaction; this is assuming that absolute culture is an abstraction which the finite mind cannot attain, but toward which it is always reaching, and hence our working definition of culture includes the approximation of this perfect culture and our selection of the elements of culture recognizes this approximation.

It will be noted that under this definition of culture is included power as well as qualities. This is warranted by the modern tendencies to consider qualities themselves as manifestations of powers. Moreover we are not using the term culture in the limited sense of refinement but rather to include all of the desirable acquisitions of body and mind. To us a feeble person is no more cultured (though he may be more refined) than a person whose powers are unsymmetrical and badly directed. In other words we consider it the function of cultivation to develop, harmonize, control the powers of the organism to rational ends rather than to refine it to feebleness. To our way of thinking it is not at all necessary that the kingdom of heaven shall suffer violence nor that the violent shall be able to take it by force. The cultivation of desirable powers is to us in fact a large part of the acquisition of culture.

Before passing to another consideration of the general subject it is pertinent to point out that in the application of the standards above the test of universality is constantly applied by the sanest of minds and we might say that the extent to which any mind universalizes its satisfaction is a

real test of the sanity of that mind. This test prevents satisfaction from being a temporary guide merely and from leading to eccentricity.

If the idea of culture has been generally arbitrary and often whimsical in its totality, it has been even more defective in emphasis laid upon the different phases and in the selection of the elements of these larger phases. While possibly there has seldom been a condition in which a man without ethical culture would be considered a cultured gentleman, there have been times when a very small amount of morality was required under this idea of a cultured man. There certainly have been times when cleanliness was not included under culture, when industry was positively excluded from the idea, when utility was considered vulgar. Moreover, within these larger phases there has been and is still a considerable amount of confusion. If we attempt to specify what constitutes ethical culture, or industrial culture, or esthetic culture, or domestic culture, or religious culture, or civic culture, or even physical culture desirable for a cultured individual we shall at once be made conscious of the difficulty of the task; yet it is this very thing that must be done to make culture a definite aim in education, and it is a little of this task that we propose to attempt, guided by the principles already laid down and aware of the limitations both of human knowledge and of human reason.

First among the larger phases of culture we shall place ethical culture (including a large part of civic). This phase is warranted by the test of persistence and the test of satisfaction. We do not need to argue this point for it is generally admitted, but we do need to look at what constitutes ethical culture. An ethical culture which does not include the duty and responsibility of the individual to society would be clearly defective under the tests. An ethical culture which permits the individual to live as a parasite on the labor of others without adequate returns is clearly perverted (and in practice our modern culture still permits slavery). First in general importance and first in need of reform we shall mention this phase of culture and suggest that the already known principles of right be applied to the several social conditions and relations.

Next to ethical culture we are inclined to place a phase of culture very close to ethical in many of its applications. This phase we shall call industrial culture. This phase has not come to its own; it has been under the shadow of a perversion of the moral culture which has permitted and still permits slavery, but with the growing repugnance of this immorality it is coming into its kingdom. Tested by the primary test of persistence industrial culture is indispensable. Tested by its ability to afford satisfaction it will rank high as soon as it is freed from the burden of the parasite and become a voluntary outlet for man's intelligent activity. Even now in America we see signs of the satisfaction which industry can afford.

Esthetic culture has been so long recognized as valuable culture that we do not need to argue its case, farther than to insist that this phase of culture be fairly and equally distributed to all members of society, to the end that it may enrich the lives of all, and to point out the necessity of applying to esthetic satisfaction the test of universality to prevent its leading to perversion.

We shall not in this place say more about domestic culture, than to urge its necessity both under our tests and to the end that the American home which seems to be in a state of dissolution, especially in the cities, shall be preserved as the foundation of our society.

The value of physical culture is generally conceded and almost as generally ignored. We merely suggest that sanitation, health, physical power, physical utility and physical grace and beauty are desirable culture and should be pursued with all the knowledge and means at our command.

For the last we have reserved religious culture not because it is last in importance, but because from the nature of religious culture we find it is so intimately connected with every other phase as to properly be treated in connection with each rather than by itself, and hence we prefer to treat it after each of the other phases has been mentioned. Religion is based upon reasonable belief and for this reason gives to each kind of culture the wider universality of this belief. The line between reasonable belief and unreasonable belief we consider to be the line between religion and superstition and superstition we shall exclude from desirable culture. Our only suggestion with reference to religious culture is that this line of reasonable belief be kept up to the advanced position which it should hold with reference to knowledge, and that it should be sufficiently vital to result in action in the several fields of human activities and interests.

With this necessarily brief consideration of culture and its larger aspects we shall turn to the distribution of this culture to the members of society.

We are not enunciating any very new doctrine when we say that we believe that ethical, religious and esthetic culture should be offered to all without reference to vocation or caste, or sex. That a large part of civic, domestic, industrial and physical culture should also be common. We would be doing something radical and novel if we were to bring about conditions, economic, moral and civic which would permit us to offer this culture to all and permit them to accept it. Much has yet to be done in practical morals before this desirable distribution of culture is possible.

Under the distribution of industrial culture we wish to point out that there are some elements of culture which are necessary only to those who follow this vocation or that, such as the use of some machine, instrument, tool, method of industry, etc. This specific culture should be furnished with no tendency to degrade.

No discussion of culture, at least from an educational viewpoint, will be satisfactory without mention of the question of the transferability of culture. We have no space in this paper for a complete discussion of the psychological consideration involved in this dispute. No one, however, in theory, at least, believes in the total transferability of any phase of knowledge, power or skill to every possible use. As far as the truth can be told briefly it is simply this. The various wholes of knowledge, power, skill which the mind is constantly reconstructing and bringing into use are composites made of many elements. These elements enter to different degrees into each of these wholes. It would be almost impossible to furnish the mind or body with any element that would not enter into some of these units of required culture. The extent to which these ele-

ments enter into the various complexes, and to which they are available for use will determine how general these elements are. In this sense there is the more general culture and the more specific, the specific being warranted rather by value of the service which it will render when needed than upon the generality of its use. Both terms are relative, but it is a fundamental law of mind that it will not long continue to do two things where one will do, and for this reason wherever an element which has this general use can also take the place of one of more special use the mind will be sure to employ it. This fact can be taken into account with advantage in furnishing the individual with the elements of culture. Much duplication can thus be avoided and more time given to the unifying of these elements into those combinations in which they will be most often needed. This will mean bringing the individual's culture to a degree of efficiency which will make it immediately practical.

We shall close this discussion with the observation that the elements of this culture are acquired before maturity and urge that all agencies of culture—the home, the church, the school and the state—make it possible for the youth not only to acquire the elements of desirable culture, but that the youth be retained under these agencies of culture until the elements have been unified into a fair degree of efficiency. This duty which society owes in imparting culture to the youth is only second to the need of grasping the right idea of what culture is desirable. Both are requisite for social progress and individual perfection.

With this brief survey of culture we will turn to the means of culture or to discipline.

II. DISCIPLINE.

I. General Statement.

1. It is the general purpose of discipline to develop the inherent tendencies of the individual.
2. Discipline includes:
 - a. The selection of the culture desired.
 - b. The determining of the emphasis to be laid upon each phase of this culture.
 - c. The selecting of the means (including material and method) for the development of these phases of culture.
3. The basis for determining the desirable culture and the emphasis to be laid upon each phase has been outlined under culture. The means will be determined by the principles of development or growth of the mind and body as well as by those conditions determining the desirability of culture.

II. Statement of Formal Discipline.

1. We have seen that there is no general culture in the sense that all of any kind of culture can be totally transferred to any particular use, but that comparatively there is some culture that has wider application than others because its elements enter more extensively into the knowledge, power or skill needed by the individual. So far as discipline aims to give these more genial elements of culture there is a general discipline. We

have seen too that there are some elements of desirable culture that do not enter so extensively into the desirable activities of the individual. That discipline which furnishes this less general culture we may call specific, remembering that it is only relatively so.

2. The physiological and psychological foundations for the above assumptions are that all acts of body and mind are complexes composed of many elements and that while all of these elements are not available for any particular act, yet there is a broad range in the combining of these elements. This being true, that is the best cultured mind which has the widest range of these elements and has them best unified for combined use when needed.

III. The means.

A. In selecting the material for an elementary course of study these considerations appear important:

- a. Preference should be given to those studies which will best furnish these general elementary data mentioned above.
- b. When these elements will at the same time lead to knowledge, power or skill, which can be applied completely, identically, to the needs of the individual they are specially to be preferred.
- c. While matured efficiency is not possible in the schools in the elementary grades this work should aim at this final efficiency.
- d. No subject or exercise which has not this aim of furnishing definite culture should have a place in the schools on the general assumption that it furnishes mental discipline, for we have seen that discipline is a means to an exact end, the furnishing of desirable, definite culture.

B. In selecting the methods of discipline these methods should be chosen which will be in closest harmony with the conditions under which the individual will be required to apply his acquisitions of knowledge, power and skill.

RESUME.

We believe that there is need of a broader conception of culture, one that will admit all those elements needed for the progress of society and that will give due emphasis to every acquisition which improves the individual and the social organism. We have offered as rational tests of such a conception of culture the ability of the quality, power or acquired tendency:

1. To fit the individual and the social organism to persist, so far as the mind can foresee this ability.

2. The ability of the quality, power or acquired tendency to render satisfaction to the individual, the latter test being guided by the universality of the satisfaction.

In considering the comparative value of the various general classes of culture we have insisted that they be subjected to the above tests and valued accordingly.

Concerning the distribution of this desirable culture we have asked that religious, ethical and esthetic culture be offered to all members of society

alike and that those phases of industrial culture which are common should receive a like common treatment, but that specific culture in this line be offered to those who may need it and always without any tendency to degrade any phase of industrial culture to the use of any particular class. We have suggested that in perfectly organized society industrial culture should render as great satisfaction as esthetic, and that it has only been prevented from doing so by the institution of servitude which has distorted the natural tendencies of the organism to find satisfaction in all the necessary activities.

Concerning discipline we have recognized:

1. The more general value of the elements which can enter into the widest range of application.
2. The superiority of those combinations of knowledge or skill or power which can be applied identically as they were acquired.
3. That no subject or exercise which does not have a definite aim in the securing of some phase of the desirable culture should have a place in a course of study.
4. That the methods should be in harmony with the conditions under which the culture is to be applied.

Finally we will say in closing that we believe that a broad rational basis for the concept of desirable culture will do much to make way for the advent of a social organization in which the individual may attain to a higher exuberance of mental and physical culture than that of the Greeks, a moral culture never before conceived of, a civic and industrial culture which will enable the social organism to become highly effective in producing and sustaining such individual qualities and powers, and a spiritual and religious culture which shall be a worthy superstructure to such a foundation and round man out toward the perfecting of his inherent possibilities to perform their widest and highest uses.

Moral and Civic Education.

The moral and civic phases of education must not be neglected, if the individual is to be socially efficient in every way. They, like the other essential phases, look toward the ultimate and universal ideal—the completely socialized individual—and each of them, like each of the others, makes its own peculiar contribution in that direction.

The ideal of moral education is the knowledge, practice and love of justice between men in the daily associations of life. It is not enough merely to know what is morally right, such knowledge must be supplemented by consistent and appropriate action. And there must still be added the love of justice. To know clearly, to practice consistently, and to love devotedly the "square deal" among men is the ideal of moral education.

The individual whose moral nature is to be developed must have the chance to learn *what* is right, *to do* what is right, and to *love* both for their own sake. This opportunity is to be found in contemporary life, history and literature. Moral situations within these fields, consisting largely of those in which truly great men and women are placed, are the material

upon which the moral nature must feed to secure its proper development. History and literature successively widen the field within which such situations are found and thus enrich both the quantity and the quality of material far beyond what they could be, if dependence were placed upon contemporary life alone.

Everywhere material for moral education should be selected with great care so that the individual may be brought into contact with significant and typical events and great men and women highly worthy of his study and emulation. Text books within the three fields named could greatly increase their usefulness as a means in moral education by bringing together more material of such a nature and by excluding much which they now contain of little or no moral value.

With individuals, of undeveloped and indetermined personality, direct ethical instruction and detailed analysis of moral situations, ideals and principles is of much less value than unanalyzed examples of noble conduct simply absorbed and imitated. This is true whether the material be taken from contemporary life, history or literature. It is most strikingly true as regards the moral influence of the teacher which, unconscious as it may be upon the part of both her pupil and herself, may reach farther than any other—even all others.

The ideal of civic education is the knowledge and practice of duties to, and the feeling of patriotism for, municipality, state and nation. In each case the practice presupposes the knowledge, and both of these—at least when they are most efficient—assume a thorough-going patriotism. Here, as in the case of moral education, the materials for study are to be found within the fields of contemporary life, history and literature. All three present situations involving the inter-relation of government and individual. In general the moral and civic ideals are so closely related—presupposing each other as they do—that much the same things are to be said of them and that they may often be cultivated at the same time and by the use of the same materials.

In the handling of the materials of moral and civic education, large use should be made of co-operation. The individual educated outside of active relations to others can acquire no moral and civic qualities. The school must become more social and less individual in its method, if it is to gain ground in moral and civic education.

Further valuable suggestions dealing with the inter-relation of individual and society and the graded arrangement of subject-matter for social study in the elementary schools are given by Dr. Gillette in his article on "Social Study in the Elementary Schools" which this report includes.

Religion in Our Elementary Schools.

Education, as a preparation for complete living, and as including the whole man, should provide for the development of the religious nature.

Further, since historically and as a matter of fact, religion and morality are usually very closely associated, and since the history of civilization plainly proves that morality for its highest efficiency demands some kind of religious basis, the emphasis on the development of character requires that moral education be reinforced by religious motives.

But as the separation of the church and school is a recognized and desirable feature of American social evolution, the formal or text book teaching of religion in our schools is, in general, either impossible or unwise.

There is, however, a distinct field of religious training that belongs logically and practically to the public school. The concepts which the child forms in his study of nature and natural sciences are not complete without the general concept of God, his creation, and man's place and obligations in this creation. Nor are his ideas of humanity as gathered from his study of literature and from his school life complete without a knowledge of the ethical teachings of Christ.

We believe, therefore, that these general ideas of God and His creation of man, and his place in creation, these principles of Christian ethics, and reverence for these ideas and principles rightly belong to the field of elementary education, and should be taught by men and women whose attitude toward these fundamental ideas and principles is right. Further, throughout the course the school should seek to develop in the mind and heart of the child a belief in God as the Father and creator of us all, should inculcate a spiritual conception of life, a Christian spirit, and a religious attitude of mind, and seek to arouse an abiding conviction of the brotherhood of men as children of one common Father. In accomplishing these results very much must always be left to the wisdom and tact of the teacher. The most important thing must always be the atmosphere of genuine reverence for sacred interest, the moral uplift from the devotion to high ideals, and the influence and example of the Christian teacher. Not the formal teaching of religion, but religious teachers and teaching religiously is the true solution of the problem of religious education in our public schools.

Further than this the committee is not willing to recommend for the work of the school. We feel, however, that more formal and definite religious instruction is needed. But the primary responsibility for religious education must devolve upon the church and home. As a committee we most strongly urge an awakening on the part of these agencies to the imperative need of progress in the intelligent and effective discharge of this responsibility.

II. THE COURSE OF STUDY FOR ELEMENTARY SCHOOLS.

Introduction.

The course of study for the common schools of North Dakota has done immense good to the schools of the state, more especially the rural schools. It meant much to substitute some degree of order for the confusion that must have existed before; it was of great value to pupils, moving from place to place as much as is the case in any new state, to have reasonably definite standards of graduation; the eighth grade graduations offered definite ideal to thousands of North Dakota boys and girls, and thus kept many of them in school a year or two longer than otherwise would have been the case. Thousands, too, of our teachers find in the course of study a constant guide in the daily planning of work, and in the orderly

presentation of subject-matter. Your committee approaches these investigations with a lively appreciation of these and other values the course has had and now has.

The Committee of Seven, however, has throughout its investigation had the feeling that in American educational systems generally courses of study for the elementary grades have not received the attention that is their due. Changing conditions have made it necessary to add new fields, new subjects to the curriculum. Occasionally a legislature in its enthusiasm over some particularly good thing has prescribed so many minutes a day, etc., to that particular thing. The force of conservatism, though, has kept the older subjects nearly unchanged in content, and the new is generally organized by its enthusiasts along its own lines, so that new and old stand in our curriculum, like the facts in the minds of Lowell's "Critic:"

"Each a separate fact, undeniably true,
But with him or each other they'd nothing to do."

Just now the particular solution urged for our educational troubles is to make education "fit for life" by adding some "vocational education" to the aggregation of facts already imposed on the children of America. That there is sound argument for greater emphasis on the future calling of the child, your committee has been agreed from the beginning of its work. On the other hand and far more important, is the simplification of the course of study long asked for by teachers and by the general public, and formally endorsed by the North Dakota Educational Association in 1908. Few states, if any, have a better course of study than we, yet only a cursory examination of our course is needed to discover that a child is supposed to be carrying five distinct lines of work in the first three years, another is added in the fourth, another in the fifth, and in the seventh grade, a pupil carries eight lines of work, besides general lessons in writing, agriculture, drawing and what not; and that any school of six or seven grades, as it not at all uncommon, has thirty to thirty-five recitations to provide for,—all of which would seem to show ample justification for the resolution. The fact that this congested condition is common to elementary programs over the northern states generally may soothe our feelings to some extent, but does not alter the fact that vigorous changes are demanded. So at the committee's second meeting it was unanimously agreed "that this Committee act in its recommendations on the view that a mere revision of the present elementary course is insufficient to meet our present needs, and hence our recommendations look toward a thorough reorganization of elementary education in North Dakota."

That this is the work of years instead of a few months, that it must come, when it does come, not as the work of one committee, but as the work of many minds each working out its own phase of the problem; that it involves ultimately the rewriting of the text books of several of the subjects, we recognize. Our resolution does not commit us to a completion of the task; it states that our recommendations "look toward" a reorganization of elementary education. We knew that we could only make a beginning, but took our instructions to mean that we were not to suggest

some temporary palliatives, but if we could not furnish exact prescriptions, we should at least do what we could to diagnose the disease, and suggest the general lines of treatment.

As has already been indicated, our investigations toward this reorganization are along two principal lines, first, and mainly, the simplification of the present course, and secondly, the introduction of some new matter, or treatment of old matter from a new viewpoint, to prepare the pupil for earning a living and for more intelligent citizenship. In simplifying the course, it was first agreed that "we favor a more extended use of the principles of correlation and alternation of subjects to the end that the number of subjects required of pupils at a given time be reduced." As long, however, as the amount of material required for each of the subjects demands five days in the week for the several years it is pursued, any considerable amount of alternation is impossible. So the real problem becomes the reduction of the amount of material called for in several at least of the courses.

The essential parts of any subjects are those parts that contribute clearly and definitely toward the aim or aims justifying the place given to that subject in the curriculum. In their recommendations of subject-matter for their respective subjects the various sub-committees have taken thoroughness rather than completeness as their aim—a mastery of these essentials rather than an attempt to cover all the details, even seemingly important ones, that the subject might include. Further, they have not felt impelled to add to these essentials any subject-matter solely or mainly on the ground of its supposed value for mental discipline; whatever has mental discipline as its sole or chief claim to its inclusion in the course has been rejected. The reasons for this appear in the report on "Formal Discipline and General Culture;" suffice to say here, that, granting the importance of mental discipline as an aim in education, it is an aim whose realization is far less dependent on the material chosen, than on the way the material is presented by the teacher and studied by the pupil.

The application of these principles is well illustrated in the recommendations for arithmetic. Believing that the How of solving the problems of number in ordinary life will generally be evidence when the need arises, and that the chief thing to get in school is readiness and accuracy in computation, the recommendations call for "more drill upon fundamentals," aiming at "greater efficiency in the simple processes." Believing that what time we devote to the How, should be to the How of doing those things the pupil is most likely to have need for doing, and that with most of our children in North Dakota, these problems will be in large measure those connected with rural life—a phase but scantily treated in most texts in arithmetic—the committee recommends a supplementary text with this class of problems. All "puzzle problems," several topics like true discount and cube root and denominations little used, like furlong, quarter (of weight), etc., are rejected, because they have no practical value—do not contribute to the end in view in Arithmetic—and their room is needed for other and more valuable material in this and other subjects. This reduction in subject matter will, it is believed, gain the time needed for

the extra drill on fundamentals, and still reduce the time needed for this subject to one or two lessons a week the first two years, and not to exceed four lessons a week for the remaining six years.

As to reading, most of the committee's recommendations refer rather to method of treatment than to the subject matter to be read. The committee does, however, wish to condemn the practice, not authorized by the course of study but followed in some schools, of filling up the reading period with a lot of informational reading, geography, physiology, nature study, etc., and to insist upon the choice of the material for its inspiration, is interest to the pupil, its power of helping him to love the good in literature and the good in life. They recommend, too, easy material and a great deal of it. To this end, they would eliminate from elementary grade work such matter as Burke's Orations, Bunker Hill Oration, Ancient Mariner, complete plays of Shakespeare (short extracts like the orations of Brutus, Antony and Portia are approved), and would advance many other selections to higher grades; e. g., Rhoecus, Grandfather's Chair, Tales of Shakespeare. As to method in reading, the committee feels, not so much that the course is at fault, as that the actual teaching is so often not in line with the course. They recommend better literary preparation of teachers, to the end that they may read pleasingly and well; that the teacher do much more reading to the pupils than is common, of good things from literature, short poems and stories, extracts from long poems, fiction or history, geography, or nature descriptions of literary merit. To do this well, the teacher must prepare herself, must read and assimilate the thought of the selection, perhaps practice it aloud, before presenting it to her school. There must too be greater emphasis on careful daily preparation of reading lessons by both teacher and pupils; to the end that pupils may study intelligently, more care is needed in assigning reading lessons (and language) than in any other lessons of the daily program. If "reading is a key to knowledge," let us train our pupils in this view by expecting them to know and tell to us the substance of what they have read. We will thus develop in the pupils' minds the feeling that reading a lesson is not naming over the words, but is really studying the lesson, and this treatment of all subjects alike, reading, language, geography, history, physiology, will make them help each other—will correlate them in one of the best ways. This does not mean of course, value mainly from the beauty of the author's wording, or from their appeal to the emotions; it does mean that our pupils are to be trained into the habit of reading to learn, and that not until they can and do read in this spirit are they in a position to appreciate the beauty or to get the moral lesson or the inspiration.

The aim of *language* study is stated in the course of study to be "the mastery of literature," and the course seems to be laid out and discussed with that aim in view. In our judgment this is a mistake. The proper aim for language in the grades is that other aim occasionally referred to but not worked out in the course—that of "teaching the child power of expression." In discussing the subject of reading above, we have indicated what we believe is the best means of training in language,—namely, to

train a pupil in all subjects to find the meaning in what he reads and then to tell it to others. When he can tell it orally, then he is ready to write it, and the aim is to have him write it in increasingly better form. So our recommendations look to the reduction of the amount of formal language work, the dropping of much of the details of parts of speech, a lessening of the emphasis now placed on literature in the language course and the planning of a course that will show the teacher as definitely what to do to give the pupil real practice in the art of expression, as the present course shows her how to teach literature and grammar. And, too, the committee believes that this plan, by increasing the pupils' ability to understand what he reads, will in the end do more to help the pupil to appreciate and enjoy good literature than is at present gained by trying to teach the subject under the head of language.

The argument for education at public expense is based in large measure on the necessity of preparing the young for the coming duties of citizenship. To this end, *history* and *civics* get their places in our school programs. Few would claim, however, that history and civics as presented in the average texts and courses of study are doing this work at all effectively. In the opinion of the committee this ineffectiveness is due in large measure to unwise choice of material which in turn occurs because both author and teacher do not have the right aim in view.

We deny that history for the grades should attempt to be a compendium of the events that have attracted national attention or that civics should be solely or even mainly an outline of the constitution and code of state and nation. In these subjects the aim should be first and above all else to arouse an abiding interest in the life about us and a desire to know more about it. Children are interested, not in dead facts and institutions as such, but in human beings, what they have done or are doing and why. Hence, we believe in emphasizing the human element, the biographical side, in grade history. And, too, history can well be shortened. What lessons have the stories of thirteen colonies that the stories of three can not teach. Why must every administration be provided with its important events? Likewise, in civics, not what the law defines as the duties of each and every official, is of interest, but what does he actually do, and why does it need to be done.

And is the pupil's present and future relation to his governmental machinery the only thing prospective citizenship calls on him to investigate? Should he not learn something of the community life of which he is a part;—the mutual and co-operative nature of society, its ethical basis and its demands on each one, the world's system of production, the division of labor and the interdependence of the producing groups, and the service performed or contribution made by each individual or institution which helps to make our community life?

Geography is in the curriculum in answer to the questions of the child and the man about their natural environment. Particular phases of the study of environment we call respectively geography, nature study and agriculture, and in more advanced work these may be quite distinct. In trade work, however, it is impossible to separate them without, on the

one hand, destroying their interrelations and help for each other, and on the other hand complicating the program. So our recommendations join the three in one series of lessons running through the eight years, though calling for only two or three lessons a week for the first three or four years. The one further fact to note here is the increased emphasis this course gives, as we believe is needed in North Dakota, to nature study, home geography and the things that help understand agricultural problems.

Aside from agriculture, manual training and domestic science are most prominent among the newer subjects demanding place in the curriculum. The committee is unanimous in recognizing the need of training for the hand as well as for the mind, and of training the future bread-maker as well as the future bread-winner. The detailed recommendations for a course in these two lines are given below, and it is the belief that the larger towns and a steadily growing number of smaller towns will find in such courses a strong factor in the maintenance of a good school curriculum. In the ordinary rural school practical difficulties to be overcome in introducing these subjects are so great as to make it at present generally impossible, in our judgment, to go farther in this line than agriculture for the boys and sewing for the girls.

The subject of physiology is not discussed, but it is not to be inferred from this that the committee ranks physiology as a subject of small importance. A "sound body" ranks on an equality with a "sound mind." The course in physiology as revised recently, eliminates the excessive emphasis heretofore given to anatomy and places the emphasis on hygiene and sanitation; it aims to develop an interest in the larger problems of the health of the community, and through these teach lessons of personal hygiene as well as make clear one's responsibility for the health of his neighbors; it aims to clear one's responsibility for the health of his neighbors; it aims toward a more practical treatment of stimulants and narcotics—all of which meets the committee's hearty approval, and our omission of a report on this subject is to be so understood.

Correlations and Alternations.—One of the striking elements of incompleteness in our report is the failure to work out a program of correlations and alternations of subjects. A second thought will convince one, however, that the arranging of these in detail is almost if not the final step in making a course of study; as such, it would be some distance in the future for us at this stage of our work. A few words may be offered here to show the general plan we have in view. In the first two grades, for example, if reading receives ten periods a week, language three, and number two; if three lessons a week are given to nature study in the fall and spring and to physiology in the winter, and one period daily for a variety of general lessons like the history stories, the teacher's reading to the pupils, etc. This would offer a wider range of work than is usually offered now and at no greater cost in time. Again, for the next three grades four periods a week would accommodate the nature study geography, and physiology in the same way, and history would require only two periods a week more. In the upper grades history should give place to civics for a term in each of at least two years, and when agriculture is

offered as a separate subject in the eighth grade it would take the place of geography. The details will not probably work out exactly as suggested here, but this will indicate in a general way what the committee had in mind.

Course of Study in Arithmetic.

GRADE I.

First six months: The work is oral and largely objective—no figures used except as an exercise in writing.

1. Knowledge of numbers from 1 to 10, obtained by means of objects.
2. Memorize these facts of addition:

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 3 | 4 | 5 | 6 | 7 | 4 | 5 | 6 | 5 |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 5 |

Include the corresponding facts of subtraction.

3. Idea and respective relation of foot and yard, pint and quart, cent, nickel and dime.
4. Idea of inch, square inch and cubic inch, and their use as units of measure, limited to 10.
5. Number relations expressed by 2's, 3's, 4's and 5's, and halves, thirds, fourths and fifths, limited to 10.
6. During these months avoid the use of such expressions as plus, minus, subtract, multiply by, divide by.

Rest of the year: The preceding work continued, but written problems may now be given and the common mathematical signs and expressions introduced.

7. Learn to count and write numbers to 100.
8. Roman numerals to XII, from the clock dial.

GRADE II.

About half of each lesson period should be given to oral exercises, the teacher stating the problem or reading it and the children answering instantly.

Problems placed on the blackboard for the pupil's seat work should be nearly all abstract, the concrete examples being given orally.

Scope of work:

1. Memorize these facts of addition:

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6 | 7 | 8 | 9 | 6 | 7 | 8 | 9 | 7 | 8 | 9 | 8 | 9 | 9 |
| 5 | 4 | 3 | 2 | 6 | 5 | 4 | 3 | 6 | 5 | 4 | 6 | 5 | 6 |

Include the corresponding facts of subtraction.

2. Adding short columns of 2's, 3's, 4's, 5's and 6's.
3. Subtracting 2's, 3's, 4's, 5's and 6's from numbers below 60.
4. Multiplication tables to 6×10 , including the corresponding facts of division.
5. Reading and writing numbers to 1,000.

6. Idea of halves, thirds, fourths, fifths and sixths of objects, and of numbers within the limits of 60.

7. Idea and respective relations of quart, peck and bushel; linear inch, foot and yard; cent, nickel, dime and dollar; pint, quart and gallon; \$1, \$2, \$5 and \$10 bills.

8. Review idea of square inch and cubic inch, and their use as units of measure.

9. Solution of problems involving one operation within the limits of 60.

GRADE III.

1. Memorize these facts of addition:

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 8 | 9 | 7 | 8 | 9 | 9 | 8 | 9 | 9 | 9 |
| 6 | 5 | 4 | 7 | 6 | 5 | 7 | 8 | 7 | 8 | 9 |

Include the corresponding facts of subtraction.

2. The course of work in addition completed that was begun in Grade II, Topic 2, now taking columns of 7's, 8's and 9's.

3. Subtracting 7's, 8's and 9's from numbers below 60.

4. Course in addition begun in 1st and 2d Grade is completed here. Teach "carrying," in addition.

5. Subtraction, including "borrowing."

6. Multiplication and division tables through 10×10 .

7. Multiplying by numbers of one figure.

8. Short division.

GRADE IV.

1. Multiplication and division tables through 12×12 .

2. Multiplying by number of two figures or more.

3. Long division.

GRADE V.

An elementary but systematic treatment of common and decimal fractions—(many simple ideas of common fractions having been learned in the preceding grades.)

The commonest topics in denominate numbers, such as United States money, linear measure, surface measure, cubic measure, liquid measure, dry measure, time measure, avoirdupois weight.

GRADE VI.

Treatment of common and decimal fractions extended. Mensuration; linear and surface measure, land measure; triangles, measuring lumber, rectangles and rectangular solids, wood. An elementary treatment of percentage and interest.

GRADE VII.

Common and decimal fractions: review of principles, and a final study of the more difficult cases of multiplication and division. Greatest common divisor, and least common multiple. Simple work in percentage. Interest—general method. Mensuration: trapeziums, parallelograms, trapezoid, circles, prisms, cylinders.

GRADE VIII.

Thorough treatment of percentage, with commercial discount, commission and insurance, taxes, government revenues, a simple treatment.

Interest, with promissory notes, partial payments (limited to one or two payments). Compound interest (limited to a study of the principle and the solution of a small number of simple problems), bank discount, stocks and bonds (limited to a study of the principle and the solution of a few simple problems).

Simple proportion. Square root. Mensuration: pyramids, cones, spheres; similar surfaces, similar solids and their ratios. Longitude and time—standard time (a very brief statement).

CHANGES.

Additions.—Problems in Agriculture: Hay in mows and stacks, fencing, silos, creameries, live and dressed weight of animals, water in plant growth, fertilizers. These would be given as part of the work throughout the school.

Omissions.—Omit cube root and the metric system which are now prescribed in the course of study, and omit the directions for holding pupils "responsible for what the text book contains" (e. g. ,Fourth Year, First Month). The text book might contain troy and apothecary's weight, true discount, present worth, foreign exchange and various other subjects which are not included in this course.

The course of study is too verbose. It should be simplified, and thus greatly improved, by striking out many meaningless, needless or inappropriate sentences and paragraphs. For example, in the first year, the remarks upon the philosophy of number. They do not belong in a course of study. Then such directions as "Show that $2+3$ has the same value as $3+2$, etc." Assume that the teacher and pupil have common sense and eliminate mere verbiage.

RECOMMENDATIONS.

1. Reduce the amount of subject matter, (a) by eliminating certain subjects as cube root and the metric system, and (b) giving less extensive treatment to certain other topics.

2. Diminish the time now devoted to arithmetic—giving but a small allotment to it in the first and second school years, and omitting it from the daily program once a week throughout the rest of the elementary course.

3. More drill in the fundamentals—better training in efficiency in simple processes.

4. A supplement to the usual text, containing problems in agriculture for the different grades.

5. Simplify the course and save much time—by omitting many of the tiresome and trivial details as to matter, and all suggestions as to method that are of questionable value.

Reading in Our Elementary Schools.

The committee believe that the following points need special emphasis:

1. The primary aim in reading is the recognition of ideas by means of written symbols. The ultimate result should be the forming of a cultivated taste for the best literature, a genuine love of reading, and the power to read easily, rapidly and accurately.

2. That these results may be obtained the pupil should be required to read widely, and the emphasis should be upon the necessity of a large amount of supplementary reading, not too difficult.

3. The emphasis should be shifted from oral reading which is little used, to silent or personal reading. This statement should not be understood, however, as implying that the pupil should be allowed to neglect the proper interpretation in vocal terms, but is intended as a recognition of the proper direction of needed emphasis only. There should also be frequent tests to ensure a proper understanding of the work covered, remembering always that a good reader is one who rapidly discovers the thought of the printed page, holds it clearly in mind, and, through expression, can readily convey this thought to others.

That the pupil may become a good reader, there should be much practice in rapid reading, and he should often be required to reproduce the real meaning of the author in language and form of expression which shall adequately represent not only the thought, but the real spirit and feeling of the writer. This may be facilitated by the use of the expressional paraphrase, that is, through asking the pupil to formulate or amplify the meaning of accent, emphasis and inflection in suitable words. Another aid to this end is to require the pupil to present a description or narration actually seen or heard, as present and realized. In all this we are to remember that there is no impression without expression.

4. Reading work should be definitely and intimately correlated with the general work of the school, especially with language, history, nature study, geography and other studies which put the pupil in touch with his natural and social environment. The subject matter should utilize, so far as possible, the present, familiar experience of the pupil, and the new should grow naturally out of what is already known. In all this, however, it should never be forgotten that the emphasis is on the subject matter as *pure literature*, not as the source of information.

5. It should always be kept in mind that *action* is the child's natural mode of expression, and hence the story, the epic and the drama should be freely used. Also, the child should be encouraged in the graphic reproduction, and even dramatic representation of the portion read through expressive activity.

6. Greater emphasis is needed upon the thorough and careful preparation and better literary training on the part of teachers of reading, as well as upon a more adequate preparation of the daily lesson, both by teacher and pupil. The teacher should be able to vitalize the subject matter through presenting it dramatically, or in story form, as well as through ability to read pleasingly and well. The one unpardonable sin in the teaching of reading is the mechanizing of the process. The individuality

of the pupil should be given full scope always, and all aids, devices and rules should be subordinated to the goal as indicated above.

Language.

Education, however defined, must take into account its two phases of impression and expression. There has been a tendency to give the emphasis to impression, in many cases, to the almost complete neglect of expression. Thoughtful educators have long condemned this tendency and we often hear e. g., "There is no impression without expression," or again, "One does not know what he cannot tell." Whether or not these last statements are to be accepted depends entirely on the meaning given them, but in any case the fact is recognized that the expression of a truth newly come into consciousness, the reproducing or retelling of it, clarifies and deepens the impression. And it does not stop with merely making the impression stronger or deeper. We are told that isolated facts do not stay in the mind, that it has no way of holding them, that it is only as a new experience or idea is associated with other experiences and ideas that the mind secures power to recall it and to use it. It is here that the greatest value of expression arises. When, through something seen or heard or read, a new fact comes into consciousness, the search for the proper words or other means to express the new calls into play words or acts that have been used to express similar or related ideas and this associates the new with those, the similar or related ideas. The new idea no longer stands alone; it is now joined to the ideas and experience that preceded it. So expression not only deepens the impression made by the new; it aids the mind in grasping the new, in apperceiving it, and making it a live part of its fund of knowledge and experience. With all these attributes and possibilities, expression may well demand large share of the educational program.

It will always be true that language is the most important means of expression; as the work of many schools is conducted today, language is practically the only means of expression. Yet in how many schools five to seven periods a day are devoted to gaining impressions and only one to a study of means of expression! In how many schools that one period is devoted to memorizing rules, definitions, memory gems, etc.—to gaining more impressions—without giving the pupil any considerable opportunity for his own ways of expression.

If education aimed only at knowledge, it would still remain true as we have shown above that expression is an important and almost necessary means at gaining a permanent hold or even a present understanding of the impressions. But education aims beyond knowledge, at knowledge plus power, and expression is more important still in the development of power. So it has been agreed among teachers that, if a child is to gain a permanent and a usable knowledge of any subject, it must be by continually calling out the expression of the knowledge as it is being gained. To this end, the good history class, e. g., is not merely a class in memorizing dates, cut and dried facts and reproducing these word for word from the book; it is a class in the expression and discussion of historical ideas, a class

in talking about historical personages and events. Similarly, in geography, reading, physiology, civics—in any subject, if we wish our pupils to think and think connectedly, to gain ability to seize essentials and to organize their ideas of the subject-matter, we must train them to talk and talk connectedly, to seek out main points for discussion, and to tell their story so that the details fall into relation to these main points.

By common consent, however, teachers have given to training in language one period a day in addition to whatever training in expression they give in other classes. In the other classes, the emphasis is on the accuracy, completeness and relation of the facts; by common consent it is agreed that there is needed a period daily, or almost daily, in which the form of presenting the facts receives special study. There are incomplete sentences, ambiguous modifiers, errors of speech, to be brought into proper form; in the geography or physiology class, these changes are made through a suggestion or question by the teacher; in the language period, practice and drill are provided to change the knowledge of correct forms into habits of speech. There are forms of written composition, margins, paragraphing, punctuation, forms of correspondence to be mastered; this work belongs essentially to the language period. It is believed that the memorizing and frequent repetition of good literature, selections from the masters of English, will widen the pupil's vocabulary and furnish models for his own expression, so memory gems often constitute a part of the language work.

It is on this last point that the committee must take issue with the present course of study and the present practice in a large proportion of North Dakota schools. The course of study sets forth two aims for language, first, the mastery of literature, and second, developing the pupil's power of expression. A careful study of the course, however, shows that, while there is an occasional statement of the importance of the art of expression, almost nothing is definitely provided to develop this art, while almost the whole course is laid out in the aim of mastering literature. In the judgment of the committee this is fundamentally wrong; the mastery of literature as such is not the purpose of grade work in language, whatever literature appears in the language period gains its place as we have shown above, merely through the assistance it can give to the pupil's power of expression. Some of the committee would like to say that memory gems, important as they are, can not give an equivalent in language training for the time they cost, and hence they do not belong in the language period, but are properly a part of the work in reading. Whether or not this last be true, the committee is united in maintaining that the purpose of language is to develop the pupil's power to tell in good form and write in good form whatever he knows and wishes to tell or write.

Another characteristic frequently appearing in the course, and questioned by the committee, is the bringing in of things extraneous to the other work of the school for the pupil to reproduce, to talk or write about. In ordinary life, we do not study up something, learn a story, etc., for the sake of writing or talking about it; why should we in school? In life, we talk or write, because we know or have learned something we think will be of interest or value to others, and we talk or write to convey this knowl-

edge to them. Then in school let us do the same; let us tell or write in the language period, an interesting story from the reading lesson one day, let us retell and better organize the facts of the history or physiology lesson another day, and occasionally let us drill on correct forms of oral and written speech. Further, should we, as the course suggests, make this correlation with only one study for several years, then another for a year, and so on. The committee believes that any body of interesting knowledge, gained by the class in any other lesson of the day may well come over to the language period to be retold with the emphasis now on the wording, the form, and the organization, and that this kind of work should form a very large part of the language work of every grade.

To many persons, however, language is merely something to fill in the place of grammar in those grades where grammar is too difficult, as fast as possible to prepare the pupil for grammar, as rapidly as possible to introduce the simpler parts of grammar, and as soon as possible to give entire place to grammar. The writers of our course of study repudiate this view, and the committee thinks rightly so. The course says: "Language is not a diluted form of grammar;" and even in the last two grades you should be training speakers and writers, and incidentally grammarians." It is to be feared, though, that in a very large proportion of North Dakota schools, the aim of seventh and eighth grade instruction is toward grammar and often entirely to the exclusion of language training. This committee would recommend as a remedy for this that a course in oral and written composition be laid out for these grades drawing topics from the other work of the grades, and showing teachers how to handle these lessons to develop the pupil's power of expression. We would recommend, too, the elimination of nearly all the subdivisions of parts of speech, the formal conjugation and functions of the tenses, beyond the simple time relations of the six indicative mode tenses, nearly all of parsing—in fact, we should regard the ability of any grammatical data to aid in developing the power of expression as the test of its introduction into grade work.

To state these points in brief, they would run about as follows:

Expression is as important as impression and the expression of an idea is a strong aid to the impression made by it.

Language is the chief means of expression available in the schoolroom.

The study of language should aim first, last and all the time, toward securing for the pupil this power of expression.

In the recitation of every subject much time and effort should be devoted to assisting the pupil to tell his facts fully and to improve his power to organize them; the language period should carry still farther this practice in telling, choosing main points, and organizing, with the emphasis on form rather than facts.

Language should be correlated not with one subject a year and next year with another, but each day with the subject that offers the most suitable material.

The work of the two upper grades should be at least half devoted to language training, and the grammar taught should be not the details of parsing, but the broad principles of sentence structure, that will aid the pupil in understanding and using the language.

General Suggestions.

The reproduction work should be mainly narration or descriptive exposition; the beautiful (especially what depends on form for its beauty) the ethical, the abstract, should generally be left in the form in which the author presented it.

The memory gem should receive attention, not alone in the language period, but also in reading.

Everything, every subject, should contribute all it can to the pupils' language training. Even Arithmetic, in completeness and accuracy of statement; in explanation of problems, in forms of written work, can help much.

Distinguish between the things for which the pupils are responsible (indicated in the course of study) and the supplementary matter suggested to the teacher.

The dictation lesson, read by the teacher, and to be written by the pupils, aims to improve their spelling and punctuation, and to call for their best penmanship. It may have other aims; it may be offered in any grade, and ought to be used as early as second grade and in all grades thereafter; it may be taken from a language text or spelling text, but it may often be better taken from the reading lesson, or from any of the other lessons.

Everywhere, get the pupil to talk, to talk connectedly, to talk logically, and to write in the best form as to margins, paragraphing, and punctuation, selection and arrangement of thought, that he is capable of at that stage of his progress.

First Year.

On the teacher's part, conversations planned on things in the school room or yard, the home life, on things seen on the way to school or in nature study excursions, and on the games played in and out of the school room. Stories should be read or told to the pupils. Good literature should be read to them.

On the pupil's part, reproductions of the facts gained through the above; later, of the facts gained through his reading lessons.

The memory gem work should include not only poetry, rhymes and the like, but dramatization as well.

In number work, insist on full statement, except in drills.

Written Work—

Learning to copy words, sentences, etc., from script copy, with care to reproduce capitals and periods.

Putting into script the printed sentences of their reader with care as to punctuation.

Making up and writing sentences in answer to the questions.

Writing name and P. O. address.

Second Year.

Work of preceding year continued with increasing independence of teacher's aid.

Add to the preceding the straightening up of margins, and indenting of paragraphs as he copies, the copying of the forms of letters from the blackboard. In the stories reproduced, the advance is in the length of the story and in the fullness of detail. The reproduction may be assisted by outlines, topical or question, and in this outline, paragraphing should be provided for. In the oral hygiene, nature study, etc., pupils should be held to reproduction in full of what was worked out the day before. In number work there should be full statement and much oral analysis.

Pupils now write letters to the teacher, to their parents, etc., but helped by headings, outlines, etc., on the board.

Third Year.

In oral reproductions, teachers should now insist on ability to reproduce details practically completely.

Conversations continued, and they now throw an increasing responsibility on the pupil for thinking and talking.

Dictation lessons begin to receive emphasis.

Drills in correct use of pronouns and possibly verbs may begin here.

Social letters receive some time (teacher to see that pupil has something to write).

Fourth Year.

Pupils now ought to organize the reproductions pretty well as they tell them—they ought not to need often to go back to pick up essential points. In writing, there should be continued emphasis on paragraphing, and order of sentences. The form as to margins and indentations should be mastered by this time.

The physiology class now begin to use a text and each recitation should be a language lesson as well as a physiology, i. e., each physiology recitation should be an exercise for the pupil in talking, in thinking on his feet, in organizing the details of what he says. If a set of facts are first given in fragmentary shape, part by one, some more by another, etc., let one pupil finally re-recite them, putting them into a connected recitation.

In formal social notes, receipting of bills, ordering of goods by letter, addressing of envelopes should receive notice.

Drills in correct use of pronouns and irregular verbs given much attention in this and the fifth grade.

Fifth Year.

By the end of this year, the irregular verbs most commonly misused should be pretty well covered.

The geography recitation should be conducted as is suggested for physiology above; the same holds true of other subjects as they are introduced later.

Compositions, oral and written, continue. The written summaries should from now on be of help to the other subjects, notably history, geography, physiology, and should be used there often, sometimes as an extended composition, sometimes in a paragraph, sometimes in an outline.

Pupil should now be writing social letters, informal invitations, etc., making out bills, receipting them and writing out receipts in good form.

Sentences should be classified as to use, and the pupil is learning to use such words as sentence, subject, predicate, noun, without, however, having a formal definition for them.

Sixth Year.

In composition from now on, the advance will be not so much in form as in organization of thought, in ability to seize the essentials and arrange them properly on the one hand, or on the other to expand by putting under any general head the details that belong to it. The biography in history and the summary or imaginary journey in geography will furnish much of this year's material, though here as always any good material is to be used, whatever lesson it may be from.

Some paraphrasing may be done, keeping to the author's wording mainly but changing certain indicated words.

Social correspondence should now include formal notes of invitation, acceptance, regrets, etc. Business letters, answers to advertisements for things "Lost," should receive several lessons.

Pupils should now receive some practice in condensing phrases to words; clauses to phrases, sentences to clauses. Some work in choice of connectives should be carried on from here through the eighth grade.

In grammar the pupil should now know the various parts of speech in ordinary constructions, but his use of the names is merely as names.

Seventh Year.

Composition now to include all the kinds that have been given in other year's work and to add the following:

Reproduction may now call for more independence of the text book and may bring in side topics. In geography or history, e. g., pupils may be called on to report orally or in writing reference work from other texts. In literature, they may be asked to report on the geographical or historical setting of the selection, or in the selection they may trace the career of a particular personage.

Pupil should be able to write checks, drafts, notes, etc., called for in arithmetic.

In this and the next grade pupils should be called on frequently to outline a topic from history or geography or the reading lesson; and to talk to the class from his outline.

Grammar.—The analysis of the simple sentence—subject, predicate, complements and modifiers. In this work the names of the parts of speech are used as *names*, without much discussion of fine distinctions.

Eighth Year.

Composition work adds—

Exposition of movements and events in history with causes, results, etc.

Character sketches from reading and history, from outlines given by teacher.

Close study of appropriate wording for the various forms of correspondence as social notes, letters of application, recommendation, introduction, acceptance and business paper.

Grammar—

Analysis of compound and complex sentences and a somewhat fuller study of the parts of speech, but both to enter far on their sub-divisions.

Social Study in the Elementary School.

I. HISTORY.

Social studies should aim primarily at these three things: (1) Sound character through intimate contact with the best men and women of our own and other times, (2) sympathetic understanding of the chief phases of the present social order (especially the industrial) as seen in the light of past conditions, and (3) such an interest in public affairs as will later express itself in patriotic citizenship. The first is to be sought chiefly through carefully selected biographical stories, the second through cause and effect studies of historic events and movements in industry, politics, religion, etc., and the third through the two kinds of material just named and the imitation in school of elections, trials, councils, legislatures, congresses, etc. The richness of American history with respect to all three kinds of material should not be forgotten.

The subject should be so handled as to be essentially a thought subject. Great freedom should be permitted and as little attention as possible should be given to purely formal things. Reference reading should be much limited and carefully directed. The value of such reading for young students is easily over-estimated. Different views of the same thing from different authors, amounting usually with children to a sea of haziness and obscurity, are not to be compared in value to one clear view obtained from a single sympathetic author or teacher.

No text should be used until the children are able to handle it with ease and thus save the history from degenerating into mere reading. Through the oral story skillfully handled and untrammelled by text books, rich and bounteous subject-matter can be easily taught in the lower grades which, because of the inability of children to read, could not be taught at all by the use of books.

FIRST THREE GRADES.

The fairy stories and myths suggested for these grades are intended merely to illustrate how through them, fanciful and imaginative in a greater or lesser degree as they are, the pupil following the order of his own development from the imaginative stage to the rational, should be permitted to approach authentic history. They should, of course, be classified as literature rather than history.

First Grade: Oral Stories.—The Ugly Duckling, Little Red Riding Hood, The Little Match Girl, Cinderella, Alice in Wonderland, The Pine Tree, The Wind and the Sun, The Four Musicians, The Three Bears, The Fox and the Grapes, etc.

Second Grade: Oral Stories.—The Golden Touch, The Gorgon's Head, The Dragon's Teeth, The Golden Fleece, The Minotaur, the Miraculous Pitcher, The Pygmies, The Snow Queen, and simple interesting incidents from the lives of great Americans.

Third Grade: Oral Stories.—The Story of the Illiad, the Adventures of Ulysses, The Tales of King Arthur, and simple, interesting incidents from the lives of great men and women—mainly American.

FOURTH AND FIFTH GRADES.

Through such stories as are suggested children may acquire an elementary knowledge in biographical form of American history by the end of the fourth year and of world history by the end of the fifth.

Fourth Grade: Oral stories from American history.—Columbus, De Soto, John Smith, Joliet and Marquette, Wolfe, Washington, Jones, Arnold, Hale, Boone, Lewis and Clark, Crockett, Carson, Lincoln, Grant, Sherman, Sheridan, Dewey, Fulton, Whitney, Morse, etc. North Dakota stories, too.

Fifth Grade: Oral stories from Old World history.—Confucius, Nebuchadnezzar, Jason, Theseus, Hercules, Olympic Games, Croesus, Marathon, Alexander, Romulus, Hannibal, Caesar, Nero, Attila, Mohammed, Charlemagne, Vasco da Gama, William the Silent, Gustavus Adolphus, Peter the Great, Michael Angelo, Leonardo Da Vinci, the French Revolution, Napoleon, Kossuth, etc.

SIXTH, SEVENTH AND EIGHTH GRADES.

With the ability to read easily things that they can understand once acquired, children should then study history from a text. A brief elementary text in simple language and attractive style and dealing with the whole period of American history, should be the basis of the work in the sixth grade. During this year the text will help to put into systematic form all that has been taught through stories in the lower grades, besides yielding much additional information not necessarily of a biographical nature. In the remaining grades a somewhat more advanced text should be used. It should go more into detail than the first one and the work should be made as intensive and complete as possible. A good deal of the time in these grades—especially the eighth—should be spent in reviewing the development of important movements.

II. OTHER SOCIAL STUDIES—CIVICS.

1. Need of the study. The recent developments in our country have abundantly shown that much of the abuse which has arisen in our political and industrial affairs has taken place because of the one-sided and exaggerated individualism which has been fostered in our educational and political system. Our psychology has been individualistic and our moral precepts and teaching have been in the direction of viewing the individual as a separate agent, alone accountable for his success and without obligation to the community which has really produced him. The cure for the bad conditions and the establishment of a better order of things must, in large part, proceed out of a better knowledge on the part of individuals

of their place and function in society and of their duty to it. This knowledge cannot be given in a year by way of mere precepts bearing on duty in the abstract, but must arise from a long inoculation through concrete teaching about the social relations of the individual and institutions as they are found in action in the community about the youth. As in the case of nature study, which begins in early years of the school and gives simple lessons about objects in nature and which becomes more and more complex in the objects considered or study of the objects and processes of nature until at the end of the elementary schools it is found capable of being differentiated into the several natural sciences, so there should be a range of social studies which begin with the simple things, the persons or functionaries of the community, in the early years of the school and takes in larger and larger areas of social facts and processes until at the top or end of the elementary schools the differentiation into the various social sciences may proceed. This is both a preparation for the higher work which will follow if the individual goes on in his educational career, and is a preparation for life in case the pupil is forced to drop off along the way.

2. Relation to and differentiation from the studies of that nature now in the school. It is not conceived that this would displace history and civics which we now have. It would rather be supplemental and foundational for both. History is the study of the past currents of life. It unfolds to the mind's eye the great dramas which have been enacted in the past ages of human activities. Social study considers what is taking place in society now in a functional way. It is a cross-section of the present, viewing individuals and institutions as organs and factors which have a definite and specific service to perform in their interdependent articulations and organic operations with the larger social mechanism. It also looks to the future and seeks to show the individual and the institution how they may better operate for their own good and that of the larger whole. It emphasizes the all around interdependence of men and institutions as based on divisions of labor and keeps in the foreground the ideal society, the ideal condition of community life, the ideal relationship of the man in the service of humanity. Because it does this it is a needed foundation for the unraveling and the understanding of the story told in history. It is a value study and gives the child standard of value to measure the worth of the historical events as they are met. It enables history to assume larger significance than it otherwise could.

In like manner it is not civics, though civics may be articulated with it as a phase of social study. For illustration, botany is nature study but the reverse is not true because the whole is greater than its part. Nature study, proper, opens up all sections of concrete nature to view. It is the basis of all the sciences, both physical, biological and anthropological. The same is true of social study. It gets at all parts and phases of community life, not merely the political or governmental. There are five or six fundamental phases of social life, or we may call them interests, which are expressed in human institutions or organizations, namely, the means or instruments which men operate through to satisfy these various wants. Some

of these important segments of society are political, economic, religious, esthetic, cultural and sociability or "social." Civics covers that small section included in the political. It gives but a fragmentary view of man in his social relations. Social study would therefore supplement this valuable study.

It would also be a foundation for civics. Civics takes up the somewhat specialized study of the functions in society of a section of society, as was just said. Social study would first establish the idea of a larger entity called society, its interdependent, organic and co-operative nature; secondly, give the idea of the function or service of every person or organization as a part of society; third, give ideals of what society and community life should strive to be, what the individual should be and what his attitude should be to make possible the realization of progress or betterment. This would serve as a most valuable background for the more specialized study of civics.

III. TENTATIVE SUGGESTIONS LOOKING TOWARD AN OUTLINE OF SOCIAL STUDY.

First Four Years.

First Year.—Genesis of the social consciousness by taking advantage of play, play instincts and play organizations. May be carried on through several years, especially as the basis of securing ideas and decisions relative to social matters. In first year to be used especially to give conception of inhibition and control of own activities, power and technique of co-operation, idea of service in and for the group, securing initiative and leadership.

Second Year.—Study of the home group—father, mother, older and younger children, hired help—to get idea of group action directed toward common welfare, division of labor, of service, interdependence, co-operation, common good, mutual rights, obligations; also group law, judicial decisions of parents, administration of group will—germs of all larger political activities; likewise the culture and protective functions in their beginnings.

Third and Fourth Years.—Carry out the beginnings laid previously into the neighborhood. Ask such questions as these about such functionaries as the following:

a. Question: Who has seen a——? Where does he work? What does he do? How does he do it? What does he do it with? Whom does he do it for? What does he do it for? What does he produce for himself? What are his needs? How are they satisfied? What do we receive from him? What do we give him? How are we helped by his work? How could we get along without him? How would it affect us?

b. Functionaries: Farmer, teacher, preacher, mail-carrier, blacksmith, carpenter, thresher, farm hand, house girl, justice of peace, marshal, school officers, road supervisors, etc.

Grammar Grades.

The work in the grammar grades differs from that of previous years chiefly in the matter of complexity of matter and situation, as well as in the spirit and vitalizing power which is to be carried into the operation.

The ideal is to make society appear to be a live, working organism, a dynamic thing, rather than a collection of disjunct members. The child is to secure his qualifications for citizenship through getting the connections intelligently in mind, in making decisions wisely as to what should obtain, in throwing his sympathies in the right direction, and seeing the part he may play and the duties and privileges which may be his.

Fifth Grade.

1. Intensive study of the school. (a) Principal. Consider selection of teachers and books; arranging course of study; programming studies; noting progress of pupils and advancing them in their school work; care of school property; of individual and school rights; health and safety of pupils; proper janitor service, etc.; service to the social group.

(b) The Teacher. Consider: What she is for; how she does her work; the preparation she has made; who benefits by what she does; how she is helped—hindered—in her work; whose loss when she is hindered; how hindrance may be avoided; what she has a right to expect; her service to the school group; to the social group.

(c) The janitor. Consider: What he does; why he does it; why is it important; what the result if neglected; how it may affect us; how he is helped—hindered—in his work; what should be our attitude toward him; why; what are his needs; how are they satisfied; what he exchanges his labor for; we satisfy his needs for what; what he gains; what we gain; what effect his absence would have on our work.

(d) The pupil. Consider: What he is here for; basis of the right; who makes the privilege possible; what he gives in return; the benefit to those who pay for it; who furnishes him the conditions for growth; what his attitude should be toward property; why; toward school books; toward his own books; why; how he is helped to make wise use of books and materials; how is the teacher helped—hindered—in doing this; how the pupil is effected when the teacher is busied with non-essentials; what he has a right to expect from teachers; what teachers have a right to expect from him; what factors make a school; what conditions determine growth.

2. A study of pioneer conditions in North Dakota to see how needs of food, clothing, fuel, government, religious services, education, labor, sociability, etc., were met; and how society got organized.

Sixth Grade.

1. Study of a primitive group, as of a Sioux tribe, to get an idea of the simpler forms of our fundamental institutions. Tribal government, civil and military chiefs, medicine men and religious ideas and rites, hunting and agriculture, division of labor between men and women, education of the boys, keeping tribal records, sign language, implement making, mythology.

2. Civics of district and township.

Seventh Grade.

1. A study of the special problems of the rural community: Diversification of crops in relation to the soil, and in view of growing population and coming smaller farms; grain raising for world markets; home and school sanitation; neighborhood co-operation for cultural and sociability purposes; making farm life more attractive to the children; co-operative agriculture; benefits of farmers' organizations.
2. Civics of county and state.

Eighth Grade.

1. Rural problems—continued. The school and farm life; how markets are made and controlled; co-operation with the government; the labor problem on North Dakota farms; dependence of farming on railroads and its bearing on railway legislation and co-operative action; how to use agricultural and market reports; schools and churches as social centers.
2. Some industrial history of the U. S.; especially history of agriculture and farmers' organizations in the past century.
3. Civics in nation. Emphasis on what government should be in a democracy, here as previously.

Geography, Nature Study and Agriculture.

The vastness of the natural science of today and the many distinct sciences growing out of the study of the forces of nature make elementary education in the natural sciences or rather in the elements of these sciences both important and difficult. The difficulty is accentuated by the brief terms in the country schools and by the limited time which over half of the children of all schools spend in attendance upon the schools.

The problem which confronts the educator is how to give the most valuable elements of this constantly increasing natural science in the limited time and with the limited means at his command.

This problem is made more difficult by the increasing demand for more civic, religious, physical, industrial and other kinds of culture.

The solution of this problem appears to be the wise selection of those fundamental elements of science which will serve to give the pupil command of the best range of scientific facts and principles which he will need.

In accordance with this idea we have arranged an outline of topics which we believe will give the pupil this command of the more elementary and fundamental facts and principles of the natural forces about him. These topics for the first three years are quite general, including the basal facts of geography, agriculture, forestry, and civics. Beginning with the fourth year the science of geography begins to be worked out as a science, and this science of geography is completed in the seventh year. From the fourth to the seventh year, however, many of the facts employed as types in completing the science of geography have been chosen because of their value also as elements of a still narrower and more strictly defined science such as agricultural and civics. In the eighth year both civics and agriculture are studied and the elements which were acquired under the study of

geography can be gathered together here and systematized into an exact science, of course, of an elementary nature and scope.

It is hoped that the outlines themselves may be more suggestive than any discussion. We beg also to remind the reader that such an outline cannot claim perfection and at its best can only be a fair working approximation which may be perfected by use and wise study of the future needs and conditions of the pupils.

Aims.

A. General.—Nature is one of the sources from which the child gets a rich apperceiving mass which he will use in forming necessary ideas in practical life.

B. Special.—Some of the necessary special ideas which the child will need later are ideas of

1. Color, form, special properties of things.
2. Relations, such as adaptation, use, habits, cause and effect, etc.
3. Beauty.
4. Right and wrong.

Material.

A. The Earth—

1. Soil, and constituents.
2. Water, and its work.
3. Atmosphere, its action and work.
4. Plant life, its conditions and uses.
5. Animal life, its conditions and uses.
6. Some of the phenomena and forces of nature.
7. Some of the mathematical measurements of the earth, its movements and forces.

B. Man—

1. History.
2. Habits.
3. Industry.
4. Government.
5. Education.
6. Religion.
7. Home life and interests.

Methods.

The general method to be employed is the selection of a practical and pedagogical type of the fact or principle to be taught and the development of this type in such a way as will lead most directly to the knowledge, power or skill aimed at in the teaching of the subject.

Outline.

First Year. Animal Life—

1. Cat, dog, horse, cow, fish. Compare with other animals.
2. Robin, meadow-lark, woodpecker. Compare with other birds.
3. Butterfly, ant, bee. Compare with other insects.

Plant Life—

1. Pansy, Easter lily, pasque flower.
2. Thistle, dandelion.

Materials—

1. Wool, cotton, silk, coal, wood.

Natural Phenomena—

1. Wind, water, fire, heat, light.

Second Year. Animal Life—

1. Use any topics in this class in first year and also the sheep and pig. Develop the idea of food animals.

2. Gopher, fox, wolf, squirrel. Compare with other wild animals.
3. Butterflies, beetles, spiders, house fly, and compare.

Plant Life—

1. Goldenrod, sweet pea, clover, daisy, sunflower.
2. Thistle, dandelion, mustard, other weeds.
3. Seeds—bean, pea, squash, wheat, and conditions required for sprouting.
4. Box elder, elm, maple.

Materials—

1. Coal, iron, copper, gold, silver, glass, soil, wood.

Natural Phenomena—

1. Wind, water, heat, light, evaporation.
2. Observation of weather.

Third Year. Animal Life—

1. Toad, frog, fish, blackbird, crow, oriole.
2. Butterflies, beetles, ants, grasshoppers.
3. Kinds of cattle and their uses.

Plant Life—

1. Roots, stems, leaves, parts of flower, and uses of these.
2. Seeds—wheat, corn, oats, dandelion, thistle, cottonwood, beggar's lice.
3. How seeds are scattered.

Materials—

1. Coal, charcoal, graphite, clay, slate, rock, soil.
2. Leather, cloth, kinds of wood, hemp, silk, paper, hay, straw.

Natural Phenomena—

1. Wind, air, water, heat, light, evaporation, dew, frost, mist, clouds, rain.
2. Observation of the weather.

Fourth Year. A. Local Geography.

1. The school room, shape, size, draw to scale and locate seats.
2. School grounds, shape, size, draw to scale.
3. The city or town, draw principal streets or roads and locate places of interest.
4. Locate on the city or town map the interesting places in the vicinity, such as rivers, lakes, etc.
5. Locate railroads, roads of community.

B. The County.

1. Discuss and locate interesting places.
2. Make a map.
3. Locate roads and railroads, forests, lakes, etc.
4. Learn the nature of the soil and what crops are raised.

C. Physical Geography—

1. Soil, brooks, valleys, hills, mountains, river, lakes, oceans, continents. Separate the soil by shaking in bottle with water. Observe clay, gravel, silt and humus. Learn how each was formed.
2. Air, winds, weather-vane, directions.
3. Temperature, the thermometer.

D. Mathematical Geography—

1. The directions, shape of earth.
2. Apparent movements of sun, zones.

E. Animal Life—

1. Butterflies, beetles, other insects.
2. Some birds, birds that especially help the farmer, game birds, plumage birds.
3. Kinds of cattle and use of each, kinds of horses and uses, kinds of pigs and uses.

F. Plant Life—

1. Wheat, corn, oats, grass—conditions under which they grow best, properties of soil each requires, cultivation, etc.
2. Pollination of flowers, how pollen is carried, use of color, nectar, scent, etc.
3. Distribution of seeds.
4. Weeds, how to get rid of each.
5. Trees, elm, willow, oak, ash, poplar, forests, location of forests of the country, uses, conditions under which they can be cultivated. Learn what conditions are required for the best growth of each kind of tree.

G. Materials—

1. Carbon, oxygen, nitrogen, hydrogen.
2. Rocks and the formation of soil.
3. Coal, iron, gold, silver, copper, tin, aluminum, salt, petroleum, natural gas.

H. The Earth as a Whole—

Shape, size, movements, oceans, continents, countries, races, peoples of the world.

Fifth Year. A. North Dakota—

1. Rivers—Special study of the Red and Missouri as types. The chief tributaries of these two rivers in North Dakota.

2. Surface.—Teacher can find valuable help in Prof. Willard's Story of the Prairies. Also in government maps, charts, etc.

3. Soil.—Review fourth year outline and enlarge upon, constituents, moisture and air in soil, fertilizing and cultivation with reference to retaining fertility, moisture, air. Learn what constituents each crop takes out, and the best way to restore it.

4. Climate, and causes determining our temperature and precipitation, winds, etc.

5. Forests.—Forests of the state, their nature, uses, values, how to protect and increase them.

6. The People—

a. Brief history of settlement and growth.

b. Industry.

1. Study as types, the raising of wheat and other small grains, corn, and stock raising.

2. Milling and elevators.

3. Lignite mining.

4. Transportation.

c. Schools.

d. Government, briefly.

B. North America—

1. Mountains and rivers.

2. Size, shape, map.

3. Climate, and causes determining.

C. The United States—

1. Brief history of settlement and growth.

2. Boundaries and map.

3. Take the most important groups of states and study.

a. Location.

b. Rivers and surface.

c. Industries, working out the cause determining and limiting.

D. Physical—

1. The formation of the soil of the United States.

2. The work of glacial drift.

3. Action of rivers and ocean currents.

E. Mathematical—

1. Seasons and zones.

2. The movements of the earth.

F. The World as a Whole—

1. Review size, shape, movements, oceans, continents and races of men.

2. Countries of the world. Something of customs, industries, government, schools and religions.

Sixth Year. A. North America—

1. Continent formation, upheaval, vulcanism, glacial action, erosion and transportation.

2. Surface, rivers, mountains, etc.

3. Plants and animals.

4. People as to race, nationality, habits of industry.

5. Latitude and longitude.

B. United States—

I. As a whole.

1. Physical features.

2. Climate.

3. Plants and animals, emphasizing the forests and their uses and the way to use and preserve them.

4. The people as to nationality and previous habits of industry.

II. By groups of states.

1. Physical features.

2. Resources.

3. Industries, choosing the types through which you may best get at the conditions and life of the people.

Make a specialty of the various forms of agriculture.

Under types of industry in the group to which North Dakota belongs treat agriculture under these topics.

(1) Soil, physical composition, chemical composition, what each crop takes out, how to restore this, best methods of cultivating in order to retain moisture and air in the soil.

(2) Enemies of each crop and how to get rid of them. The teacher will find aid in Goff and Mayne's Ele. Agriculture, Shepard and McDowell's, etc.

4. Government.

5. Education.

6. Habits.

7. Religion.

C. Other Countries of North America.—Treat in the same way as United States, but more briefly and compare constantly with the United States.

D. Physical—

1. Teach at the right time in connection with topics above.

a. Continent formation.

b. Winds and climate.

c. Ocean currents.

E. Mathematical—

1. The seasons.

2. The earth as a planet.

3. Movements of the earth.

Seventh Grade—

1. South American.

2. Europe.

3. Asia.

4. Africa.

5. Australia.

6. Important Island Possessions.

Treat all the above in the same manner as is outlined for a study of North America, but not so intensively, and always comparing with North America and the United States, and where suitable, with the state of North Dakota.

Manual Training, Domestic Science, Domestic Art, Agriculture.

In planning a course of instruction in Manual Training, Domestic Science and Art and Agriculture for the public schools the following principles are basic:

(1) Industry conditions life. For this reason, if no other, it is fundamental in the education of the young.

(2) Industry conditions society, its arts and institutions. It is the sub-structure that makes society possible. For this reason it is fundamental in the education of the young.

(3) Man's first duty to society is to be self-supporting; therefore the first office of education is to enable the pupil to support himself.

(4) The child should be given an opportunity to observe and participate in the industrial processes that form the sub-structure of our social life. Where this is not done the *quality of life* must suffer.

(5) Individual industrial experience is as necessary a condition for the normal development of the child as racial industrial experience has been for the progress of social life.

(6) The home cannot furnish this industrial experience; the school must do it.

(7) Since the school course is already overburdened, industry must become the means through which other subjects are acquired. Through industry the child and the symbols of education (book learning) are to be brought into vital relationship. Industry is thus the "articulating center" of school life.

(8) No school system making any claims to completeness can consistently ignore the claims of industry as an integral part of the curriculum.

(9) The manual and domestic arts and agriculture, being primal community necessities, are the means through which the school must relate itself to active community life.

I. TYPES OF SCHOOLS.

The public school system of North Dakota, as at present organized and administered, includes the following types:

- (1) The one-room rural district school.
- (2) The consolidated rural school.
- (3) The village school.
- (4) The city school.

II. SUGGESTIVE COURSES.

(1) *One Room Rural School.*

Where rural school buildings are of the type prevalent in North Dakota, and where the teaching force is untrained and migratory, little in the form of industrial training can be accomplished. With inadequate facilities and untrained teachers failure is practically certain. The fact that instruction in the elements of agriculture in the rural schools has so often resulted in failure has led numerous teachers and school boards to abandon the field without an effort. Such failures have been due to untrained teachers. What has been true of agriculture will hold true in equal measure of manual training and domestic science and art. Where the teacher is properly trained and enthusiastic and conditions favorable a limited amount of industrial work may be confidently undertaken.

(A) Elementary Agriculture: Such a course should include the study of:

(1) The Soil: Modes of cultivation; fertilization; drainage, effects of crop rotation; adaptation of different soils to various products; methods of restoring worn-out soils, etc., etc.

(2) Plant Life: Varieties of cultivated plants; selection and care of seed; climate; modes of growth; propagation; tillage; harvesting, etc.

(3) Animal Life: Types of domestic animals; breeds and breeding; best varieties for certain purposes; feeding; judging; care; preparation for market; diseases; their detection, prevention and cure; animal pests, etc.

(4) Economics of Agriculture: Methods of administering the affairs of the farm; accounting; the relation of farming to local and general industries, etc.

(B) Manual Training:

The use of wood, iron, leather and paint, in making and mending.

(C) Domestic Science and Art:

Kind and quality of fabrics; adaptation; instruction and practice in plain hand sewing and dressmaking. Food values; selection and preservation of foods; methods in plain, fancy and invalid cooking; serving equipment and care of kitchen, dining room, etc.; the house site; house furnishings and their care; house sanitation; laundry work; marketing; household accounts, etc.

Model Rural School Buildings.

Where the facilities are adequate and the teacher properly trained, two of the above courses are entirely possible for the rural schools. Facilities for carrying on the work are imperative. Additional land, to serve as a garden and demonstration laboratory, is a necessity. An additional room for a workshop is required. This may be built as an addition to the existing school-house at small cost. See *Cornell Rural School House*, published by Cornell University, Ithaca, N. Y.

(2) Consolidated Rural School.

In the consolidated rural school having four or more teachers, one of whom is prepared to teach manual training and agriculture and another domestic science and art, the field of industrial education may be greatly extended and far better results obtained than in the one-room rural school. This is possible because of a better grade of teaching ability, a stronger school spirit and proper facilities for carrying forward the work. Here the school plant should include a special room for manual training and domestic science and art and sufficient land to afford practical instruction in farm management, fertilization of soil, rotation of crops, growth of vegetables, small fruit, fruit trees, etc. Where such conditions prevail, and where the principal is provided with a home adjacent to the school plant, instruction may be provided under almost ideal conditions.

In the well-developed consolidated school, equipped as above, the industrial instruction may well take the following form:

Grades I to IV—

- (A) Agriculture and Nature Study:
 - Neighborhood bird, plant and animal life.
 - Window and home gardens.
 - Life history of a few attractive flowers and trees.
 - Weather records.
- (B) Manual Training:
 - (1) Materials: Raffia, grasses, straw, paper, corn-husks, yarn, cardboard, etc.
 - (2) Processes: Clay modeling, weaving, braiding, sewing and making.
 - (3) Projects: A graduated series bearing an intimate relation to the child's interests, his home and school life; such articles as he can and wants to use.

Grade V—

- (A) Agriculture and Nature Study:
 - Birds; their economic value.
 - Insects and animals helpful to gardens.
 - Insects and animals harmful to gardens.
 - House insects.
 - Weeds in relation to the garden.
 - Dissemination of seeds.
 - Experimental work as to the effects of heat, light, moisture, soil and air upon the germination of seeds and the growth of plants.
- (B) Manual Training:
 - (1) Materials: Cardboard, basswood, etc.
 - (2) Projects: See under "Grades I to IV" above.
 - (3) The Working Drawing, showing the different steps in the construction of the object, should be marked out before the pupil is permitted to begin the construction.

- (C) Domestic Science and Art:

- (1) Materials: Raffia, rattan, canvas, cloth, etc.
 - (2) Projects: Weaving, braiding, sewing and darning and these processes applied.

Grade VI—

- (A) Agriculture and Nature Study:
 - Work of the previous year continued.
 - Insects in relation to agriculture.
- (B) Manual Training:
 - (1) Materials: Wood.
 - (2) Projects: Elementary woodwork.
 - (3) Drawing.

- (C) Domestic Science and Art:

- (1) Elementary sewing.
 - (2) Elementary cooking.

Grade VII—

- (A) Agriculture and Nature Study:
 - Elementary text and practical work.

- (B) Manual Training:
 - (1) Elementary woodworking.
 - (2) Elementary metal-working.
 - (3) Drawing.
- (C) Domestic Science and Art:
 - (1) Elementary sewing.
 - (2) Elementary cooking.

Grade VIII—

- (A) Agriculture and Nature Study:
Text and practical work.
- (B) Manual Training:
 - (1) Elementary woodworking.
 - (2) Elementary metal-working.
 - (3) Drawing.
- (C) Domestic Science and Art:
 - (1) Sewing.
 - (2) Cooking.

Grade IX—

- (A) Agriculture and Nature Study:
Agricultural Botany—half year.
- (B) Manual Training:
Carpentry.
- (C) Domestic Science and Art:
 - Sewing.
 - Cooking.

Grade X—

- (A) Agriculture and Nature Study:
Stock judging, seeds, etc.; half year.
- (B) Manual Training:
Forging.
- (C) Domestic Science and Art:
 - Sewing.
 - Cooking.

(3) Village Schools.

The course of study in the village schools follows the traditional lines found in the city schools. Its courses should be so modified as to provide for instruction in the elements of agriculture, manual training and domestic science and art. The industrial courses may well follow the general lines laid down for consolidated rural schools, being modified and amended to meet local conditions. The success of such courses will depend upon trained teachers being employed.

(4) City School Systems.

By city school systems is meant those that are so large that at least one person is chosen to recommend teachers, to organize, aid and direct their work and to supervise the instruction.

(1) The course in nature study should begin in the primary grades and extend upward through the eight grades, merging into elementary agriculture in the grammar grade and high school.

(2) The course in manual training should begin in the primary grades and should extend through all the grades in a series of carefully graded lessons. In general terms this course should comprehend the following lines of instruction:

(1) Grades I to VIII inclusive:

Clay modeling.
Paper and cardboard construction.
Weaving.
Drawing.
Sewing.
Cooking.
Bent iron work.
Knife work.
Sheet metal work.
Bench work in wood.

(2) Grades IX to XII inclusive:

(a) For Boys:

Joinery.
Wood turning and pattern making.
Molding.
Forging.
Machine shop practice.
Mechanical drawing.

(b) For Girls:

Sewing.
Cooking.
Dressmaking.
Marketing.
Serving meals.
Home sanitation and economics.

III. TEACHERS AND SUPERINTENDENTS.

As the teacher is the most important factor in a school no discussion of the readjustment of education can leave out of account the necessary adjustment of the teaching staff upon which the former must be conditioned. Herewith are presented some very brief considerations pertaining to this part of the problem.

Preparation of Teachers for the Elementary Schools.

Every state educational institution in North Dakota is either wholly or partly engaged in the preparation of teachers for the elementary schools. Private schools are also so occupied. And yet with all this effort and with many teachers coming from other states we are still in need of more and better trained teachers for both graded and ungraded schools. As long as the demand for such teachers is greater than even all of these sources

can meet, it hardly seems wise to deprive any institution, having even meager facilities for the work, of the privilege of training them. The training of teachers for its elementary schools is probably the greatest and the most important work that any state can do, and no state, especially North Dakota with her demand so much greater than her supply, should be too quick to restrict the effort of any institution in this direction.

But it is nevertheless true that as the educational system of a state develops there ought to be a rational and economic division of the task of training teachers for the public schools, in order that different institutions may not unwisely duplicate and rival each other and that the training of no class of teachers may be slighted. When we come in North Dakota to such a division, the training of teachers for the elementary schools will be restricted to the state normal schools (and to county normal schools, if they appear here as they have in some other states) and the state educational institutions doing work of a collegiate grade will be held to the preparation of teachers for the secondary schools.

The state normal schools should be equipped as soon as possible to take the same conspicuous part in training elementary school teachers in manual training, domestic science and agriculture that they have always taken in training such teachers in the traditional elementary subjects. It is imperative that the normal schools be so equipped. The solution of the problem of improving the conditions of country and village life is more properly to be expected of the normal schools than any other institutions, because of the peculiar position that they occupy with respect to all elementary schools.

An arrangement, at least temporary, should be made by which elementary pedagogy, together with observation and practice-teaching in the lower grades, would be offered as electives in our high schools. The arrangement should permit the issuance to high school graduates who do this work of second-grade certificates entitling them to teach in rural schools for a limited time. This would tend to increase rather than decrease attendance at the normal school, and it would certainly increase both the number and the quality of rural school teachers. The second-grade certificate good for only a limited time should be the highest form of license given under this arrangement. Students desiring licenses of a higher grade should be expected to extend their preparation in more advanced institutions—in normal schools, if they are to remain elementary teachers; in colleges, if they are to become secondary teachers. If county normal schools are ever established they should be organized under the direction and supervision of the state normal schools.

The state normal schools as now organized are much more useful to the graded than to the ungraded elementary schools. These institutions ought to include as a part of their training departments a model rural school in connection with which students preparing to teach in rural schools might receive more helpful training than the normal schools now give.

The Improvement of Teachers Already in Service.

The agencies that may be utilized for the improvement and professional advancement of teachers already in the service include state institutions of higher learning, high schools, summer schools, institutes, supervision, teachers' meetings and reading circles.

State institutions of higher learning: The State University, the Agricultural College, the Normal Schools, and the State Normal and Industrial School should make provision for instruction in all public school subjects, including nature study, agriculture, manual training and domestic science and art, so that, while on leave or during vacations, teachers may find in these institutions opportunities for improvement.

High Schools: These schools should broaden their curriculum so as to include a fair proportion of the industrial subjects and a limited amount of elementary pedagogical work. This would be a good thing not only for high school students preparing to teach, but for some teachers already in service who might drop teaching for a short time occasionally to advance themselves professionally in the high schools.

Summer Schools: The six weeks summer terms at the various state institutions should be continued and the courses in nature study, agriculture and mechanic and domestic arts should be given more emphasis. A few others might be opened in the more remote parts of the state at points that are convenient of access and have ample room, equipment and other facilities.

Institutes: They are useful, but could be greatly improved if the instruction in them were everywhere of superior quality. The state department should be given means with which to employ expert talent to conduct institutes throughout the state. Institutes are inspirational in character and too limited in point of time to admit of much training.

Supervision: The value of efficient supervision as an agency for the improvement of teachers is not yet realized in our state at large. The supervisor should be the teacher's teacher. To fulfill this requirement two things are necessary: (1) He must have expert qualifications; and (2) it must be physically possible for him to visit schools at reasonable intervals, i. e., their number must not exceed fifty for one supervisor. Money for the improvement of teachers already in the service could not be spent to better advantage than by providing more effective supervision.

Teachers' Meetings: These could be greatly improved by giving the places on programs to persons who have something to say. In towns more use should be made of the grade meeting. In the country less attention should be given to central county meetings, and more to local meetings held at different times and in different places.

Reading Circles: These should be encouraged. More reading, selected only for its pedagogical value should be required. At least one book of each year's series should be chosen with reference to its help in the newer educational fields.

Recommendation: In all preparation of teachers, wherever and by whatever agencies it may be carried on, due account should be taken of the urgent modern demand for industrial education. The teachers' certificate

law should be so adjusted to the needs of the times as to give proper recognition to nature study, agriculture, manual training and domestic science, and thus encourage teachers to qualify themselves in these lines. But at present very few are thus prepared, and any law making mandatory the teaching of these subjects in the public schools at the present time would result in failure and serve to retard industrial education. Constructive effort should be directed towards supplying such agencies as will popularize these subjects, and will, at the same time, promote instruction therein in the rural schools. To this end your committee recommends the enactment of a law establishing not less than three agricultural or industrial high schools such as are found in Michigan, Wisconsin or Minnesota.

Supervision.

To investigate and report the number of hours city superintendents have to teach in high schools of the various classes, how much time they get for supervision, how various ones use this time to the advantage of their respective schools; how many visits rural schools each receive from the county superintendent, what ratio of increase results from the use of one or more field deputies, what are the principal ways in which a supervisor can be of help to rural schools—would have been an interesting task and would, we believe, furnish us some helpful summaries, at the same time that it would give each of us many valuable hints from the experience of our fellow workers. Lack of time forbade our entering on this field, but we feel we ought not to close this report without calling attention to the importance of this part of our system, and to some of its problems and needs.

Boards of education hire a good high school teacher at \$600 to \$700 a year; they hire a superintendent of schools at \$1,200 to \$1,600 a year, and then in the smaller towns frequently give him so much teaching to do that they practically make a high school teacher out of him—force a \$1,200 to \$1,600 man to do mostly \$700 work. And the evil is worse in its influence than in its necessary effect. With four-fifths of the superintendent's time necessarily spent on his high school, and nearly all his immediate and definite tasks there, the tendency is for him to overlook and forget the more general and less immediate duties of supervision of the grades. Teachers often complain of the infrequency of their superintendent's visits; that he seldom or never offers them any real help in their teaching; that he has seemingly little interest in the grades of his school. We know that in state associations the city superintendents as a rule devote practically all their time to the problems of the high school, while the elementary section which represents eight grades and 85 per cent of their pupils and which should be the strongest section of the association, is largely left to shift for itself. That this is not so much the fault of the individuals as of the conditions with which they are surrounded, this committee is convinced; the city superintendents of North Dakota are a body of men of whom their fellow workers and the state at large are and ought to be proud. But where all one's time is taken in high school teaching and preparing lessons for teaching, supervision is impossible;

and where a superintendent, himself trained best for the higher work, is surrounded most of the time by high school work, the tendency is almost unavoidable for his thought and interest to be there to a too great exclusion of the problems of his grades. Consequently, to the end that superintendents be more free to devote time to their duties of supervision—the work they are really hired and paid to do—we recommend to boards of education a considerable reduction of the number of recitations the superintendents are now generally called upon to teach.

It needs little investigation to show that in rural school, the conditions as to supervision are truly deplorable. The committee has not available any statistics for the past three years, but in the year 1904-1905, the county superintendents made 4,347 visits, divided among 3,487 schools—one a year to each school, with 860 visits for emergency visits and rare second or third visits. In 1905-1906, 3,804 schools received 4,546 visits—one each and 742 for emergency visits, etc. It goes without saying that, valuable as that one visit generally is, one visit a year does not afford much real supervision. When we find that in some cases superintendents having 50 to 100 schools made in two years less than one visit to each school each year, we cannot but feel that an explanation is due from those superintendents. When we find on the other hand that several superintendents made from 150 to 275 visits yearly and still could get to each school an average of one and a quarter visits each year, we must condemn the system that renders ineffective so much work. It was the impossibility for any one to supervise effectively 150 to 220 schools scattered over 600 to 2,000 square miles, that led the last legislature to give a field deputy to the superintendent of 150 or more schools. This committee wishes to commend this action as a step in the right direction. When we think that in city supervision, it is common for a board of education to employ their superintendents' whole time for supervision, as soon as their school passes to twenty-five or thirty departments, and how much more time is needed for the same number of rural schools, we feel that further steps should be taken in this direction than have been taken—that as recommended by Supt. Stockwell, there should be a supervising officer for every not to exceed fifty schools.

PRESENTING THE REPORT OF THE COMMITTEE OF SEVEN.

C. C. SCHMIDT, CHAIRMAN OF THE COMMITTEE.

Our Committee was asked to study, during the year that has just passed, the field of elementary education, and to make a report of our work at this meeting of the Association. We have put in upon this task a large portion of our spare time but have been entirely unable to do justice to the problem. We feel now more than ever, that the field of elementary education offers greater difficulties in school administration than all other educational fields combined. Yet, notwithstanding the fragmentary character of our work, it seemed best to us to comply with the wishes of the association and publish a report of what little we have been able to accomplish up to the present time, in the hope that it may contribute, at least a small factor, in hastening progress which at best must of necessity be very slow.

The Committee of Seven was appointed to report upon the Adjustment of Educational Work to Meet the Needs of the Times. This implies that our educational system is a misfit, that somehow it is either too long or too short, too ample or too narrow and skimpy. As to the exact nature of the misfit the members of this association are not agreed. But there is a feeling that our schools are overburdening our children with subjects of study, and that bewilderment and superficiality must almost inevitably result. Some believe that we ought to return to the simple curriculum of our colonial fathers, to fewer subjects, and more particularly to those which are sometimes called the "fundamentals," reading, writing, arithmetic, and the like. This species of discontent has been noticeable for many years. But the reactionary forces have failed to make any headway, and in spite of every form of opposition the newer subjects of the course of study persist and newer aspects of training have laid a permanent claim upon the school's functions. Here is our first problem: How to pour still more into a jug that is already running over.

Upon another important proposition, I think there is a fair consensus of opinion, namely, that the product of our schools and colleges fails to meet the modern pressing demand for efficiency—efficiency in the various duties that must devolve upon the individual if he plays his full part and does his full share of work as a member of our social order. This association is not unduly pessimistic in its outlook. We know that the population which has converted a desolate plain into a prosperous empire in the short space of half a generation may safely challenge comparison with any people upon God's earth. But to grow blind with conceit is to invite fatal stagnation, and we must admit that efficient teachers do not instruct children for eight years and then send forth so many of them that are innocent of the fundamentals of an elementary education; that efficient farmers do not exhaust their soil in ten or twenty years and maintain the unattractive, dreary, dilapidated homes that disgust their family with rural life and drive them to the city; that efficient ministers do not preach to empty pews and grumble at the materialism of the age; that efficient business men do not charge double prices for merchandise and yet occasionally fail to pay expenses; that efficient home-makers do not use up the last cent of a good income and still fail to provide a wholesome diet for a small family; and we must admit that an efficient citizenship does not show to the world so many shining examples of how not to govern cities, counties and states in a republican country.

As the faults here alluded to prevail in our midst in great abundance it is apparent that our educational output is short on efficiency, whatever else may be said of it. We have been content to give the learner insight into certain long cultivated fields of academic knowledge, and have trusted to luck that he would pick up a knowledge of his more immediate natural and social environment, and skill in the practical application of his knowledge.

I am well aware that many isolated instances exist that form exceptions to this statement. The arraignment does not apply to every individual

teacher, school or institution but is meant merely in a general way for our educational system as a whole.

I cannot take time here to specify other details in the misfit that needs adjusting; but you will be able to see from the report, which has been furnished to you, that the committee recommends the reorganization of the curriculum along several lines, among which are the following:

First. A more critical examination of the proper functions of each branch of study that is now in the course, should be made, and then all matter that does not directly contribute to the attainment of the legitimate aim of this subject should be eliminated. Such a measure would greatly reduce the amount of subject matter that we now have in the course. In this process the educational value of every item in the curriculum should be considered upon its own merits; described in specific terms, instead of dodging the issue with the all embracing plea that it is good, or not good, for culture or for discipline. The pre-eminent value of these results of the educative process are undisputed, but "culture and discipline" has become a hackneyed phrase, too often employed by the theorist who must talk in platitudes because he has made no critical analysis that enables him to give more definitely the specific educational value of his subject.

Secondly. Make such additions to each branch as are needed for the better attainment of its end or aim. In most of the subject but few such additions would need to be made. The changes in this line would consist principally of a shifting of the emphasis from the unimportant to what is vital.

Thirdly. Certain work that is now recognized only in name should be more adequately developed, and a serious attempt should be made to let it come to its own. Under the present circumstances very little progress in the newer school subjects can be expected. The course of study, while mentioning them, gives them recognition in a meagre, grudging way, making no attempt to organize the work in them as it does in the older subjects. This leaves the teacher at sea and makes her feel that this part of the course is a sort of unimportant appendix that she is not expected to give any attention to.

Moreover, progress is conditioned upon the qualifications of teachers, and the present certificate law gives no recognition to anything but the traditional academic subjects, and therefore does not encourage teachers to qualify themselves in the newer lines of school work.

Fourthly. In case of many subjects it is especially important that the text book in use shall carry out the spirit of the course of study. For example, when the text book in language lessons is merely a diluted elementary grammar, then our third, fourth, fifth and sixth grade children will receive grammar lessons instead of language lessons, no matter what the course of study says. This implies that the text books, as well as the course of study, are a strong factor in hastening or impeding progress in the adjustment of the school work in North Dakota, with reference to the needs of the times, and therefore should be chosen with greater care, and with more reference to the curriculum.

Some of the changes that the committee has in contemplation would be initiated by the legislature and others by the school men and women of the state. From the former must come certain legislation, such as (1) securing better sanitary conditions of the schools, (2) providing increased supervision, (3) providing more adequate training of teachers in the newer subjects, and (4) adjusting the teacher's certificate law to the end that it will give recognition to the newer subjects, and encourage the teachers, and eventually require them, to qualify themselves in at least a portion of them.

From the educators must come a new course of study for the common schools, and upon this task should be employed the best experts in the field of elementary education that the state possesses, no matter whether they are found in the county or city superintendency, normal schools, colleges or university. The Committee of Seven in its report presents a few suggestions for such a revised course.

Let us now reason together and apply ourselves patriotically to this adjustment of school work to meet the needs of the times. There is not so great a difference of opinion among the members of the association as sometimes appears on the surface. But the discussions over these problems often assume the character of an academic debate more than a sincere effort to hear and consider all shades of opinion and thus arrive at the best solution. The opportunity for a debate usually arises from the indefinite contents of the terms employed. The opponent juggles with all loose terms, sometimes showing almost a willful misinterpretation of the other man's meaning, and displaying more eagerness to defeat the other in the debate than to understand his viewpoint and thus let him contribute something for the good of the cause.

Therefore, I say again, let us recognize that we have serious and difficult problems here; that no one man is likely to be all right and the others all wrong, but that it behooves everybody to consider the experience and opinions of others; that with a problem of this magnitude even half of our educators can make but slow progress if the other half play the reactionary instead of lending their assistance. Each must contribute his share, and all must work in unison, or the adjustment of education to meet the needs of the times may not be realized till after these times have past, and new conditions have again been ushered in.

DISCUSSION OF REPORT OF COMMITTEE OF SEVEN.

LAKE G. WATSON.

The church is generally given the credit of being the pre-eminent conservative factor in the march of civilization, but the school might certainly be reckoned as a close second,—hence it is that in the midst of rapidly changing conditions, and notwithstanding the promulgation in educational circles of progressive ideas concerning administration and instruction in our schools, they still bear plainly the imprint of times long past. So strong is the tendency to keep to the traditional that the changes that have been

incorporated in our school system as a whole are cause for congratulation, and the bold front assumed by a few schools through the country in daring to organize their work absolutely along modern and progressive lines is almost startling. Even the rendering of a report such as we have listened to this afternoon which would make physical well-being a fact realized in practice rather than treated by precept, which does not overlook the fact that the elementary necessities of food, clothing and shelter are just as much necessities now as ever, and not only recognizes that the pupil is preparing himself to earn an honest living but would lend a hand to help him to discover in what way he can best do this, which regards culture as something farther reaching and deeper seated than the current conception of it has commonly realized and which relegates mental discipline for discipline's sake to a back seat, putting the practical value of knowledge in the foreground is at least an encouraging sign of the times.

Of the numerous points of divergence between this report and the traditional practice in our schools probably none is more significant than the aim which is proposed. The development of social efficiency is in marked contrast to the "harmonious development of all of the powers" of the individual. While the two aims possess many attributes in common and each involves the recognition of both the individual and the group, the shifting of emphasis from the former to the latter represents more truly the spirit of the times.

The conception of culture as expressed in the report is surely more comprehensive and more wholesome than the prevailing notion of culture has been in the past. This, too, is more in line with present day thought. Dr. Dewey declares that "culture designates the socialization of the individual in his whole outlook upon life and mode of dealing with it," and Dr. McMurtry speaks of culture as a refinement that can only be attained by direct participation in social life and the cultured man is pictured as "in action, even with his sleeves rolled up, in the accomplishment of high purposes." The application of such ideas in our schools and their general dissemination would certainly go far toward eradicating artificiality and false ideals in society at large.

Again any aid in overturning the fetish of discipline as divorced from social values is a distinct contribution to the welfare of the entire school system. Discipline has been the banner under which various subjects that bear little relation to actual life have marched into our schools, and continues to be the shield of the teacher who fails to see how his subject functions in the adjustment of individual to environment.

While the report places decided emphasis upon the idea of qualification for rendering social service and specific provision is made for social, moral and civic training through the study of relations in the home, school, etc., and of history and civics, one of the most effective means of accomplishing this end, and at the same time a means that is practically unemployed at present, receives slight mention. I refer to the organization of the school with reference to the relations of individuals and of groups within it to each other. The prevailing tendency in our schools is to gather together information about human experience rather than to make

conditions such that children may actually have the experience. We claim to prepare the individual to take his place in the social group and maintain him in an atmosphere that is intensely individualistic. The recitation furnishes an example of this. The children of a class have studied the same set of facts and in recitation are set to reproduce them. No opportunity is given for a particular child to work out something for himself and contribute the results to the common stock while he in turn profits by the efforts of others. Even in reading aloud the child is usually deprived of normal motive by the fact that his hearers have read the story and probably have it in the book before them as he reads. Deprived of the stimulus that social motives should furnish it is not unusual that rivalry and fear become their substitutes.

Further, can not the genesis of law be exemplified as well by the school community as by the community outside of the school? Children even in the first grade can appreciate the conditions that make punctuality necessary to the well being of the school and noninterference with others essential to certain phases of the school work. School regulations are not more effective by being imposed upon the class by the teacher and the growth in social responsiveness is certainly thus lessened.

Again, what opportunities do our schools offer for co-operation in work undertaken? Seldom is a group of pupils permitted to undertake a piece of work together, assuming responsibility for particular parts of it and each under obligation to do his part to the best of his ability in order to insure the success of the whole. Even the work in manual training is usually piece work, although it is a subject that lends itself most readily to co-operative effort.

In the matter of instruction it is not uncommon for subjects to be treated as though they existed only in books, and were something peculiar to the school instead of being phases of actual human experience like in kind to what enters into the life of every community, and are classified and organized as arithmetic, geography, history, etc., merely as a matter of convenience and because the tendency of the human mind is to systematize and order knowledge.

Is not the school too much disposed, also, to put too great emphasis upon knowing as compared with feeling and doing? Knowing and feeling have their reason for being in determining action and in actual life we find the three bearing this relation to each other. The school is supposed to prepare for life. In order to fit the child for participation in the life of a community it should be organized as an embryonic community. When through some such means it develops in its members not only social insight but social responsiveness and social power, we may expect the realization of the aim which is put forth by the report this afternoon.

DISCUSSION—REPORT OF THE COMMITTEE OF SEVEN.

SUPT. GEO. F. FORSTER, HARVEY.

We would call your attention to that part of the report (page 12) reading "We believe * * * that each adult, within the limits of his capacity, shall be physically well, shall be vocationally capable, shall have civic and moral insight and motive, and shall keep alive some cultural and esthetic interests;" also to that part of the report (page 13) reading: "We would also make provision for his spiritual life and cultivate an interest in and a taste for the beautiful in nature, art and literature, and a sympathy with all that makes modern civilization worth while."

We would call special attention to these suggestions because of the fear that they are being lost sight of in the campaign for the practical. Both of the above quotations are taken from the paper on "Vocational Education." In itself this is significant, and worthy of pause. These few words are written in hearty agreement with the idea, and to urge further study by the committee to the end that there may be a better understanding of how we may "keep alive" these suggested "cultural and esthetic interests."

In a public letter anent the recent N. E. A. meeting at Denver, Henry Sabin says: "There was no man there with a message * * * The entire trend was vocational and that because it harmonizes with the commercial spirit of the times * * * The two carried to extremes and working together will produce nothing great. * * * 'The uplift' * * * must come through some combination other than this. * * * The great educational want of today is MEN."

Yes, or of any day and of any want, it is men: men of thought and character; men of worth and ideals; men, real MEN.

"Round the cape of a sudden came the sea,
And the sun looked over the mountain's rim;
And straight was a path of gold for him,
And the need of a world of men for me."—Browning.

From the deepest needs of our social life comes that longing call, a new and yet an old, old call: *The need of a world of men*. Politics heeds that call, and leaders step forth from the ranks to point the way against chicanery and oppression; business heeds that call, and feels the throes of the new-old ideal struggling to be born; and education—shall she too not heed the call? Shall she not stand as much for LIVING as for EARNING A LIVING?

The injuries inflicted by the schools today are fewer and less often fatal, perhaps, than once they were; we are learning to do better work, and our average product is of a higher type of efficiency; but is not each individual, perhaps, a little nearer the grand average, and are not the really great mind fewer in number? High ideals seem wanting or are tinged with the commercial spirit. We must preserve our mental equilibrium or the demands of the industrial and commercial interests may prejudice the cause for which we labor. (And it will not do to say that because of the conservatism of school boards and school officers the pen-

dulum can not swing too far from the traditional course; as I watch its tendencies in the larger commercial and industrial centers I am not too sure it has not already swung beyond that "middle way in which lies safety.") The world needs not alone efficient workers, but efficient thinkers, as well; not alone earners of wealth but wise spenders of it, likewise; not alone diggers of dross but dreamers of dreams.

We once put arithmetic and spelling and grammar and history and civics into the course because they were practical; and because they are so intensely practical and solemnly useful and insufferably dull and uninteresting, we are unable to keep the boys and girls in school. Is adding other practical courses going to remedy matters? What is then? The suggested cutting out of the so-called unessentials in the common branches is but making these branches more practical still, and will build up no great ideals. The teacher's personality will not do it, if that personality is also tinged with materialism. No, the panacea for our educational ills and ailments must needs be sought elsewhere than in the practical and the vocational.

And this is not saying, if you please, that arithmetic, formal grammar, shop-work and sewing are valueless.

But to paraphrase a recent writer, does our education give us sympathy with all good causes and make us eager to espouse them?

Does it make us public-spirited?

Does it make us brother to the weak?

Does it teach us how to make friends and keep them?

To look an honest man or woman straight in the eye?

To see something to love in a little child?

To enjoy a tramp in the woods or fields?

To find recreation in poetry and pictures?

To be able to seat oneself, during the progress of a Wagnerian opera, in a cheap seat in the gallery, and let one's soul be carried into another world for hours together, while one's millionaire employer is soundly sleeping in his luxuriously cushioned box?

Does our education teach us these things, and are these things worth while? Or shall we go on eternally preaching dollars and dryness?

Granted all that is claimed for the vocational idea, bench work and domestic science, we must ever keep before us, are not going to "keep alive those esthetic interests," as the report recommends. The stress laid upon the utilitarianism of such branches of study points directly away from the esthetic. Arithmetic, formal grammar, penmanship and spelling may each have elements of the esthetic in them, but are not in themselves going to build up great ideals within the meaning of the report. They are also too practical and utilitarian. Classes in reading which are merely classes in elocution; or classes in history and civics which meet but to hear a re-hash of text book facts; or classes in the geography of boundary lines and steamship routes are none of them going to do it. Our whole course of study for the elementary schools is already too practical and petrified. I thank the committee for calling attention to the fact.

"Aand phwat is this new edycashun Hogan's bye is tellin' of?" asked Hennessy of Mr. Dooley, as the twain were coming home from early mass.

"Aw, the koind that comes from the use of the jig-saw rather than from the studyin' of the dicshunery? I've noticed that meself, Hinnessy. It's a grand idea. The argymint suns loike this, I'm thinking," replied Mr. Dooley.

"Hogan's Mike and your Mary Ann no longer need the koind of schoolin' that helped Martyn Luther and the Pope in their bull-foight, or Thomas Jefsern to wroite the Deklayrashun of Independunce. No, sir; they need to learn the use of the turnin' lathe, a Sarycuse chilled plow, balinced rashuns for the goat, an incubator hincoop, and a vacyume cleaner. Of phwat use is it for Mike and Marry Ann to read of how the squawk of a goslen waked a sleepin' sentinel out too late at a wake the noight before; or of Mr. Raluph Waldorf Emerson's reflecsuns on Boston's Common?

"No, sir, it's the hands that need to be blistered, not the mind. That's the argymint.

"The hands earn the bread, why bother to train the head for a parlor ornaymint? Brick-a-brack is out of date, Hinnessy. You must make everything contribute to your stomach or your bank account or your wife's ayester bonnet. Books can't compete with a plumber's bill. They're the hare in the race; the plumber is the mock turtle.

"Down with the books. They must go. They've had their day. Give the jack plane and the butter-ladle the place on the parlor cinter-table formerly occupied by the dicshunery and Tom Moore's poetry book.

"That's the slogan, Hinnessy; but I'm thinkin' a long avenin' at home with just thim sinsible things to look at would be rather stoopid, and thim suggestin' more achin' mussels and tired hands on the morrow, too. It's all foine for Hogan's boy now whin he can drop his johnnies at the five o'clock whistle, rush home for a square meal and arroive at the movin' picture show by siven puncthool. But whin he reaches our age, Hinnessy, phwat thin? Whin he comes limpin' home with the rumatiz a grippin' him fair awful, puts on his carpet slippers, shoves a maple knot in the shtove, and sits down to spend the avenin', will he want a Sarycuse chilled plow, a cross-saw, or a book for a plaything?"—Am. Ed. Rev.

Mr. Selden said in part:

The discussion of the report as a whole is too large a task for the time allowed. As it has been some twenty-five years since I have acted in the capacity of school principal, having to do with all the school subjects, I presume the intent of the committee is that I discuss only that part of the report bearing on manual training.

I need not take time to inform you that manual training, or the particular brand of this article known as scientific manual training, is my hobby. It is a long time since I first became interested in shop work in connection with school work. Some thirty years ago when only a pupil in the public schools I did my first work that would be called by some, "Cor-related manual training." Never have I lost sight of the value of hand-work in connection with school work. The result of all this experience and study of tool work is the development of a system of manual training differing in a marked degree from that ordinarily found in the public schools.

The discussion of this new system of work in a manner to convey a correct idea of its value is impracticable in the few minutes at my command. Experience has taught me not to make such an attempt. I will, therefore, make a few brief and somewhat dogmatic statements in regard to the work. Those wishing to know more about this system can study the exhibit of the Valley City State Normal School at the High School. They may also read the series of articles on manual training in the American School Board Journal of Milwaukee, Wis. The bulletin of the Valley City State Normal also gives some information in regard to the plan of the courses.

I will read a statement in regard to scientific manual training partly my own and partly the words of a prominent business man of Chicago who has become deeply interested in this new line of work. "Scientific manual training covers the science on which the working of solid material depends. It makes the work of the school shops the demonstrating of principles instead of the studying of tool processes. These principles are applied to a great variety of manipulations, or tool processes, giving the pupil power to adapt himself to a wide range of industrial activities, and also supplying educational value incomparably beyond that resulting from equal time given to the study of craftsmanship.

That the introduction of this system of shop work will have a marked effect in the arranging and time limits of the various branches of school work is evident to all those familiar with its purpose and scope. It will relieve other branches of some of their subject matter as well as increase the interest. The thorough introduction of scientific manual training means the advance of the practical side of school work to such an extent as will place the pupil at the close of the eighth grade as far along in efficiency in practical industrial lines as the average high school pupil is now who has completed the work of the old line manual training high school and this with a large increase in the educational value.

So far in no case has the introduction of scientific manual training failed to increase the interest and to demonstrate the success of this advanced line of school work.

THE INFLUENCE OF A HIGHER INSTITUTION OF LEARNING ON THE TOWN IN WHICH IT IS LOCATED.

PROF. CHARLTON ANDREWS, VALLEY CITY NORMAL.

My subject is: "The Influence of a Higher Institution of Learning on the Town in Which it is Located." It occurs to me that the ponderosity of this title might be relieved if it were agreed in the outset to accept an old jingling phrase in use at Oxford University. You will recall that the Oxonians sum up the entire community in which the university is located in the word Town, and similarly epitomize the institution of learning, its students, its faculty, and its officers, in the term Gown. My subject, then, reduced,

is, "The Influence of Gown upon Town," 'Gown' here including the university, the college and the normal school. I take the stand that this influence ought to be very great and that it ought to evoke an equally beneficial effect of Town upon Gown, but that it often fails in both.

The reference to Oxford inevitably suggests the hostile nature of the proverbial relation between Town and Gown in that glorious old seat of classic learning. It was somewhere about 1214 that the citizens of Oxford seized upon two obstreperous students and hanged them. The University immediately countered by setting an exorbitant value on the pair of students, which sum it compelled the town to pay. Perhaps more than one modern American higher institution of learning would be exceedingly glad of an opportunity to dispose of at least a small percentage of its students by so profitable a plan. A century later Oxford had to call to its aid two neighboring villages in order to conclude a battle which left forty students and twenty-three townsmen slain. Again Gown compelled Town to pay dearly for the recreation. Pacific relations were resumed under pressure, and it was only a question of time until the accumulating stress of antagonism should "lift the lid" in another explosion.

It is possible that there still exists a well-defined remnant of this same hostility between modern American Town and Gown; not a mere animosity between students and non-students, but—particularly perhaps in our western states—a hampering spirit of friction between the entire educational institution and the bulk of the community in which it is placed. Often, indeed, such friction actually obtains between a considerable proportion of a town and its own public school system. It is this hostility, this friction, which interferes with the complete co-operation which manifestly ought to exist between Town and Gown.

The obvious basis upon which Town and Gown may be brought together in this condition of co-operation is the basis of their mutual interests. These interests manifestly exist in large and growing measure; the difficulty lies in inducing both Town and Gown to realize their importance. The private, selfish interests of the individuals who go to make up both Town and Gown often are, or seem very distinct and different; and the relative values of these private affairs become so distorted as to obscure the complete identity of the greater, general, unselfish interests of both school and community. The perfect welfare of both is indispensable to their mutual health and progress: what injures one necessarily injures the other. They are natural allies who always harm themselves by quarreling with each other. Each by helping the other helps itself; each by hampering the other hampers itself.

If there exist a mutual intolerance between Town and Gown, doubtless it is sometimes not without excuse. A large proportion of the town is prone to look upon the faculty of the school as a body of impractical prudes and pedants, self-centered and complacently smug. Town is apt to regard the student body as a gang of wild and woolly young heathen, away from the restraints of home and on a perpetual lark, who crowd the townsmen off their own sidewalks and deride them unmercifully when they complain. If there be ground for either indictment, obviously it ought to be removed.

Let the soured pedagogue be replaced by *human* teachers; and let the attention of these latter be directed to the improvement of the morals and manners of the young people in their charge.

Gown's influence over Town can only be extended through fostering a wholesome respect on the part of the latter for the former. The townsman will always despise the prig and the prude; he will have a hearty contempt for the victim of the alleged artistic temperament, and for mere absent-minded and slovenly rock or bug hunters; the townsman realizes that, after all, genius is not a matter of eccentric conduct, of unkempt apparel, or of long or short hair varying inversely according to sex. The townsman grows weary of perpetually having to make allowances for the vagaries of freakish pedagogues. He sees no real reason why a college faculty must always be made up of fussy old ladies of both sexes.

The day of the freak professor is passing. Nowadays, in our progressive western schools, no man—no matter how remarkable his achievements in research in any line—is now regarded as a successful college or normal instructor, whose life does not include many sides other than that of his specialty. After all, the teacher's first business is to touch the character of the young at as many different points as possible—in manners, morals, and general good citizenship, as well as through instruction in some singly art or science. And only the well-rounded, broad-minded, sympathetic *human being* can accomplish this. The mere bookworm, the mechanical gerund-grinder will not only always tend to keep the general reputation of his fellow-gownsmen low in the esteem of the honest citizens of the town.

Perhaps it is the freak professor that has contributed most to Town's general notion of the utterly impractical nature of Gown. At all events, it is deplorably true that Town very often regards the pedagogue as a mere child in that business, politics, and world of practical affairs in which Town itself is so exclusively interested. Gown, meanwhile, is absorbed in education and in more general interests; and it is not astonishing that Town should often conceive of its unpractical, pedantic neighbors as dwellers in another world. But the grounds for this distinction are less now than ever before, and they are diminishing daily. The good influences of Gown upon Town will everywhere be given a mighty impetus when the former demonstrate to the latter that school and college education are beginning to take on the degree of practicability they deserve. The townsman—however otherwise unsympathetic with higher education he may be—always has a wholesome respect for schooling that produces visibly useful and immediate results. And when his interest has once been won over thus far, it will be no very difficult matter to lead him on to see the importance of the other phases of education whose immediate results are less obvious and tangible. And certainly the influence of Gown upon Town will become all that it should be and more than can readily be estimated when each higher institution of learning succeeds in impressing upon its local community the larger value of a broad academic culture which prepares young men and women not only to make a living, but also to *live* in this world—and to have some reasonable qualifications for living in the next.

Gown's possibilities of influencing Town are very large in the *social* way. One of the chief enemies of a strong social intercourse between Town and Gown is the frequent transiency of the college or normal instructor. His permanence and consequently, a considerable degree of his effectiveness, in the community rests largely with his employers. Townswomen have been heard to say, regarding transient professors and their families: "We are not going to waste our social efforts on people who will move away from here in two or three years: our social duty is to our friends, the permanent residents." Those high in authority in educational institutions can not only eliminate this element of faculty-transiency, but can also promote the social intercourse between Town and Town to a large degree.

There is one practical point of contact between Town and Gown which I should like to mention before I close, and that is the relations between the college or normal and the local public schools. The normal trains grade teachers, the college and the university often train high school teachers, and it is becoming the general custom for the local community to offer its public schools for the purposes of practice to the young teachers who are being professionally trained. For example, in one Illinois city where a great state normal school is located, the city turns over to the Normal an entire school building which is administered under the sole direction of the state institution. The town of Bloomington places its high school in the hands of the University of Indiana there situated. It appears to be the general opinion where this has been tried, that the mutual advantages of the plan are very great, the disadvantages very small. The normal or college is benefited by this broad field for practice observation so essential to the real training of teachers; and the community not only has a portion of its school system paid for by the state, but it also gains for its children a brand of instruction considerably superior to that offered by the ordinary public schools. Though the pupil in the practice school is often taught by novices, he is also continually under the observation and direct training of high-salaried experts, a fact which more than counterbalances any disadvantages resulting from the student-teacher system. When the city of Minot comes to establish in her midst a third North Dakota State Normal school, I sincerely hope she will see fit to make it her policy from the start to offer her public schools to the state institution for unrestricted purposes of practice.

Given mutual interests and sympathy and respect, given an understanding of each other's true aims and character, given practical and social intercourse and co-operation, and the influence of Gown upon Town will be almost immeasurable. Many a college or normal school has changed a community of narrow money-grabbers and gossips into an intellectual center full of refined tastes, gracious manners, and genuine culture. Similarly, many a progressive, practical, hardheaded common-sense community has exerted the very most needful influence for balance and sanity and broad-mindedness upon a college or normal faculty and student body. The possibilities of such co-operation are unlimited. To ignore them, or to neglect them were gross wastefulness, extravagant and immoral; to foster and develop and make the most of them in every way is to work for the best interests of education and the advancement of good citizenship.

THE INFLUENCE OF HIGHER INSTITUTIONS OF LEARNING ON
A GROUP OF TOWNS.

PROF. M. A. BRANNON, UNIVERSITY.

The subject assigned for this part of the program manifestly refers to the urban influence of the educational institutions offering work beyond the high school course. The implication is that there are distinct needs in the life of towns which may be supplied by the higher institutions of learning. Granting the correctness of this implication it is necessary to analyze the supposed needs and then determine whether the institutions have a capacity for supplying the same, and possibly suggesting some method whereby the supply may be economically given. I know of no better way to attack this analysis than to consider the institutional life of the community.

The home, the school, the church, commercial, industrial and political organizations practically comprehend all of the activities of the citizens in every town. Obviously the higher institutions of learning cannot concern themselves very intensively and directly with political or religious needs. Whatever service is rendered in these directions must be indirect and purely suggestive. If we exclude these two divisions of social activities, we have to concern ourselves with the needs of the other four, and even here much elimination must be made if one is to find any encouragement in his endeavor to extend higher school life to urban communities. For economic and practical reasons, therefore, he should curtail the list of needs to such an extent that there may be reasonable hope of success for the higher institutions, which really desire to make an effort in supplying these needs. The list should comprise such needs only as are clearly and emphatically associated with conservation of resources, advancement of culture and efficiency in administration. In this list I think we may fairly include home sanitation, home culture, home finances, school sanitation, school culture, school administration, business organization and business administration. In order to determine whether this list of eight needs is superficial or natural, you are asked to bear witness relative to your personal knowledge of the conditions in the home, school and business activities of your respective communities. In how many homes known to you is the question of pure water, pure food, proper ventilation, proper clothing, proper exercise and sufficient sleep recognized as questions of paramount importance, notably in the lives of growing children, and almost as notably in the lives of grown up children? In how many homes known to you is the question of artistic but simple and inexpensive house construction, house decoration, suitable literature, really artistic pictures, inexpensive and simple to be sure, and proper interest in really high class music considered seriously and studiously? In how many homes known to you is business administration recognized and elaborated? Do you know of a single home in which the wise dictum of thrift that "one's out-go should, under average conditions, be less than his income" is given proper consideration? In how many homes do the purchasers of food, clothing and fuel buy with the wise foresight that must characterize the successful administration of any boarding house and of any hotel?

Undoubtedly most of you can bear testimony to the needs of the school in urban communities even better than you can to the needs of the home in those communities. In some respects the sanitation needs are more pronounced than in the homes because a larger number of individuals are grouped together. I am tempted to use the brutal term "herded together," when I recall the wretched lack of ventilation and poor janitor service that I have noted in some schools of the smaller towns in North Dakota. Surely if you have been keeping in touch with the wave-like movement for medical supervision in schools, you will consent to the statement that there is a lively need in every school for the application of hygienic regulation and expert information relative to the physical condition of every child enrolled in school work. Reliable evidence indicates that the larger percentage of defectives may be relieved of their defects, thereby insuring them against becoming a burden to themselves and their fellow pupils at the present time.

In addition to the physical needs manifestly present in a large number of urban schools we have the need of giving attention to the same essentials of art and music that have been mentioned as existing in the home. And then above every other need I should like to mention one other. This is mentioned with much diffidence, with a lively realization of the limits which are placed upon teachers and the strenuous burdens imposed in many cases upon them, but, nevertheless, I am constrained to say that I believe that the great need in administering the urban school is the well prepared and devoted teacher. Once again you are asked to bear witness to this point of the analysis. Further attention will be given to this point when the method of supplying these needs, or attempting to supply these needs, is given treatment.

I am not quite so sure of your ability to testify relative to urban needs in the industrial and commercial activities as in the two spheres of life, the home and school, already referred to. However, I am convinced that the lack of organization in the conduct of many commercial and industrial institutions is so manifest that even teachers must have knowledge of the situation. As an illustration one may cite the question of the catalogue houses, which agitates, to a considerable extent, every town in this commonwealth. A less obvious example, so far as teachers are concerned, but one of far greater importance, is the question of commercial credits in urban society. Economists agree, I believe, that were it possible to do business on a cash basis so that it would be unnecessary to discount a single bill, even by so much as a cent, there would be a saving so great that prices could be materially lowered in almost every commodity, and want would be practically unknown. As matters now stand many commercial and industrial institutions are doing business on a suicidal credit basis which ought to be abandoned, and undoubtedly would be if the need of enlightening the *principals* in these activities were recognized and satisfied by the proper authorities. I should not like to be classed as a socialist of extreme type, but I am confident that there is an opportunity of enormous economy which would effect beneficially every inhabitant of every town, if the principle of co-operation could be developed, and conservative administration of industrial and commercial co-operative activities could be secured. This

belief is founded upon the banking principle that interest must be in direct relation to risk. Risks always increase with waste and the converse is true, risks decrease with the exercise of wise economy. Whether your experiences have led you to consider these needs in the industrial or commercial activities of the urban community as fully as you have considered the needs of the home and school organization, it is undoubtedly true that you have considered them sufficiently to recognize the correctness of the foregoing observations.

Thus far we have constructed a category of needs in the homes, schools, commercial and industrial institutions of North Dakota towns. It remains to consider the ways and means open to higher institutions of learning that would endeavor to assist the citizens to meet these needs wisely and satisfactorily. The two ways of approach that are open may be called the indirect and direct. The indirect is represented by the benefits which accrue to those communities whose sons and daughters, trained in the higher institutions of learning, return again home to share and apply as far as possible the training and culture which have been developed under the direction of the institutions in which they have had some years of residence. The direct way is represented by the great extension movement which reaches out sympathetically and helpfully from the higher institutional centers and crosses the very threshold of the homes of the people. Undoubtedly the time has passed when educational leaders will be content with results gotten from the class room on the college campus. They desire to extend the boundaries of their work and take the truth of the class room to the homes, schools and the industrial and commercial institutions of the communities whose contributions make it possible for the college class rooms to exist. They realize that in this way and this way only, they can know the double benediction of the one who gives, for it is to be remembered that they themselves will become beneficiaries as well as those to whom the helpful messages are carried. A knowledge of the local needs of a commonwealth always assist instructors in carrying on the higher education of those who come from the homes where the peculiar local needs exist.

Of course this all means the application of the extension movement. The question arises whether we can devise some plan or map out some policy whereby the extension movement can be applied to the urban needs of the state. It should be a plan which, first and foremost, would give efficient results and be capable of economic administration. Efficiency clearly means that this work must be carried on by those who have made a special study of the needs referred to and have had suitable training in the direction of sympathetically and intelligently bringing relief. If we were to assume that each institution of higher learning had a similar group of extension instructors properly trained and equipped for doing this extension work, it would be logical to conclude that each institution might serve most economically a distinct group of towns which were located within its own immediate geographical boundaries. I do not know whether the framers of this program had this form of extension in mind or not. If so, I am afraid that I shall be unable to agree with them in respect to

the possibility of such a scheme being feasible. On the contrary an examination of the existing conditions in North Dakota indicates that we have developed educationally somewhat along the lines that were laid down by the framers of our constitution, who specified, with considerable latitude it is true, the respective functions of the University, the Agricultural College, the Normal School, the Industrial Schools and the School of Forestry. Each of these institutions was supposed to have somewhat definite and separate functions from any institution in another class. Each was supposed to minister along its own fairly well defined lines to the whole state, and these facts will have to be recognized in any extension plan which is to win approval and secure any measure of success. In other states where higher institutions of learning were differentiated in a manner similar to that in North Dakota, there has been approval of the plan that each institution keep within its own sphere of prescribed activities. As far as I am aware, the extension work in those states has been carried on almost wholly by the State University and the State Agricultural College. The very name Agricultural College implies that the extension function of that institution is to express itself with reference to the needs of the agricultural communities. Undoubtedly some of those activities may find expression in extension work which administers directly to the needs of urban life. However, the field of agriculture is so large and the demands and growth so rapid that the Agricultural College has its hands more than full in its own well recognized and specifically ordered field of agricultural activities. Judging from the practice in other states, this leaves the extension work in the urban community life largely to the State University, some of which work will unquestionably directly benefit the country communities. The Agricultural College has already made extensive advances in its own specific field of extension work. It has been supplied with considerable funds, wisely appropriated by the state, for the prosecution of its important agricultural work. The State University in North Dakota has made comparatively little progress in its field of extension work, that is, making direct contributions towards supplying the needs of the home, the schools, industrial and commercial institutions referred to in our category of needs. Manifestly this is a field that should be entered in the interest of health and culture in home and schools, in the interest of conservation of resources and economic administration of the commercial and industrial activities in the various centers of trade in this state. Undoubtedly in the economical development of this urban extension work, it will be possible and desirable to have the hearty co-operation of certain special workers in the Normal Schools, the Industrial Schools, the Agricultural College and the denominational colleges, to the end that most service may be gotten at the least expense. It is quite possible, also, that the Agricultural College in its extension work, could profitably cultivate the same co-operative spirit with reference to its extension activities, but in each field it is safe to affirm that properly trained extension workers, that is, people who know the needs in the community life to which they are to be sent and who can sympathetically and constructively minister to those needs, are the ones to whom should be entrusted the major part of this

enormously important educational work. In connection with the needs of the schools in urban communities, workers from our Normal Schools could do most valuable work. Obviously it is not given to me to dictate fields of activity for any of the North Dakota institutions, but in connection with the needs of the schools in urban communities, it would seem appropriate to suggest that workers from the Normal Schools might join in a movement directed toward relieving urban educational needs. The function of the Normal School is very generally recognized to be that which deals with the problems of education and is exercised directly in training teachers for service in the state. Only a comparatively small number of urban teachers in North Dakota are trained by North Dakota institutions (possibly 25 per cent), hence it is evident that the Normal Schools can do special work in conjunction with the schools needs of our urban life, not only benefiting the various communities served, but establishing an acquaintance which would draw a much larger attendance to their doors, thus enabling them to make noteworthy progress in correcting what is recognized as a serious situation in this state. I refer to the fact that a very large percentage of our teachers are foreigners, I mean to say that they are not residents of North Dakota, and they do not, therefore, ally themselves with the intensive educational activities of the state. An illustration is given in connection with the science work in North Dakota. The legislature established a biological station at Devils Lake which will be open for investigation and student training in the summer of 1910. Rare opportunities will be offered in this laboratory for biological training. Inquiries were sent to a large number of the leading schools of the state and almost without exception I was informed that the teachers of the science work were non-residents of the state, and that it was improbable that they would ally themselves with this new and properly virile educational agent in North Dakota. I believe that if science teachers in North Dakota were residents of the state and were desirous of advancing the biological work that this opportunity would be seized by very large numbers. I am informed by those who are recognized as authorities in the matter, that the same state of affairs exists in other than the science subjects, notably in the grades, hence I am moved to urged upon the Normal Schools the importance and the imperative character of the call for their share in the extension work in the urban society of this state, to the end that urban school needs may be ministered to and a large increase in resident teachers may be realized.

The accusation may be made that the main question of this paper has been ignored. Even so, it would be better to plead guilty to that charge than to the charge of advancing a scheme that was illogical and impossible. Notwithstanding the fact that North Dakota is an enormous territory geographically, it is manifestly more economical to organize and administer extension work in certain institutions, from which most of the expert workers could be sent over the entire state, rather than to endeavor to organize several groups of extension workers whose traveling expenses might be something less, but whose salary total would be vastly greater than would be the case were a strong, centralized, extension scheme developed.

WAYS IN WHICH THE HIGHER INSTITUTIONS MAY SERVE
RURAL COMMUNITIES.

PROF. A. D. WEEKS, AGRICULTURAL COLLEGE.

The conditions prevailing in rural communities throughout the United States have been much discussed of late. The report of the Country Life Commission supplied extensive material. Observers agree that rural conditions are in need of attention at the hands of those in control of agencies for social amelioration.

It is deplorable that it has become a common rule that the country should be satisfied with less than the city. The country department store has its full share of second rate commodities, antiquated styles, shoddy fabrics, glaring chromos, ambiguous utilities and articles of flimsy and meretricious construction, many of which should never have been manufactured for anybody's use. Too often the country pulpit dispenses doctrines at variance with the best thought of the city ministry, and indeed the country preacher sometimes reserves for private use the reviving and clarifying truths of modern thought, giving to his country flock the sterile and unprogressive. The teacher who would not be acceptable to the city board of education is held good enough for the children of the country. In some of our counties 80 per cent of the country teachers have had less than a high school education, while there is scarcely a fair sized town in the state that employs any except normal, college or university graduates as teachers in the public schools. The towns and cities are well supplied with high schools, but the great majority of country youth in North Dakota are from five to fifty miles from a high school and are virtually denied the privileges of modern education.

The only way by which we may make sure that our society will not cleave into castes, becoming more and more rigid as pioneer conditions pass away, and develop an extensive country population at social and economic disadvantage, perhaps a peasant class, is to guarantee that the essential advantages of urban communities shall be enjoyed by those who live on the land.

Science has no place for blind optimism. As long as society can protect itself from the germs of social decay, as long as the forces that go to uncivilize us are kept in check, as long as virility, uprightness, initiative and intelligence can be kept in the saddle, so long shall we be safe. But history records devolution as well as evolution. Possibly the national future will be decided by the success with which the country life question is solved, inasmuch as this question seems, even more than the city slum question, to be the point at which issue is joined between conflicting social forces.

The two chief agencies of social control are education and legislation, closely interrelated. Improvement of rural life depends greatly upon legislation. The success of trusts, private national banks, industries based upon patents and copyrights, manufacturing industries favored by the tariff, and the various lines of business benefiting by grants of public lands or by the privileges of eminent domain, has become pronounced. The success

of the small tiller of the soil might be similarly greatly advanced by favorable legislation. The burden of high rates of interest is a heavy one. A vast load would be lifted from farmers if they might borrow money at low rates of interest as does the farmer in New Zealand, a country possessing a government life insurance department and a postal savings bank, both of which control great sums of money for public benefit.

In a complex society legislation must be looked to more and more for social equality and justice. Now and then there is a cry of too much legislation. As a matter of fact we are very inadequately supplied with legislation. Legislation comprises the rules of the game. It is the warp and woof of modern civilization.

Education may act directly upon legislation as when educators appear before legislative bodies or serve in official position. Whenever the educator does get a chance to act directly upon legislation, let him make the most of it, throwing into his task the ideals of his high calling and realizing that the opportunity of the ages has arrived.

Somewhat less directly but as certainly the higher institutions may mold the laws by impressing their students with proper civic ideals, supplying them with pertinent, systematized information on governmental questions, opening up clearly the lines of civic study and analyzing the social forces which to the layman are a murky tangle and to the crafty a means of exploitation.

For a variety of removable causes our higher institutions are doing less than they should on the civic side and the high schools are as bad. There were 32 per cent fewer students pursuing the study of civics in North Dakota high schools last year than the year before. Every college and university should be a moot legislature and a powerful center of civic honesty, political enlightenment and justice. A broad basis should be laid for understanding social issues. Public opinion should be made to feel the influence of the higher institutions in political affairs. The formation of public opinion should not be left to controlled publications or attorneys of special interests.

Herbert Spencer showed that the industries and technical science of England grew up entirely apart from the schools. Government may be added as a branch of social activity with which the schools have had too little to do. This will not continue to be the case. I predict that within five years a wave of educational interest in social and civic instruction will sweep the country, even as we are now in the full tide of interest in education for production.

A great deal of attention ought to be given to the civic and social needs of the country population. First the conditions must be studied and analyzed. Many questions must be raised and many lines of inquiry laid out. We need to know more about the facts of country life, its strong and weak points. Definite data should show to what extent there is preventable ill health. Let us know more about the relation of house work on the farm to insanity. Let us learn what psychological effects are produced by the strange immensities about the dweller on the plains. Let us know

to what extent the person in the country goes without things, buys inferior things, pays too much for things and does the wrong things. It would be interesting to know how many million dollars a year the North Dakota farmer invests in worthless stocks. A New York banking house sets the sum lost annually in the United States through poor investments at over half a billion dollars. This state is notorious for the easy pickings of the dubious promoter. The farm, the garden, the door yard, the grove, the house, the barn, the crops, the school and the family all come within the range of our modern reformatory curiosity which knows no barriers of privacy or law of trespass. First we need to know conditions. We want the facts.

To get the facts, interpret them, create attitudes with regard to them and work up momentum for improved conditions is an educational duty. There is scarcely a department in college or university but has its part to play in the improvement of rural conditions. The debating clubs may well take up questions pertaining to agricultural production and marketing. There are questions of legal, educational and industrial character upon which there should be much mind-clearing discussion not only among college students but by the students in our high schools as well.

The need of adequate instruction along all the lines of industry represented in country communities is too evident to require extended discussion. Education in the industries of agriculture, stock raising, fruit culture, home making and forms of manufacturing lies at the very basis of improved condition.

More and better ways of reaching out and directly affecting the life of rural communities are being found. The extra-mural college and university have great possibilities. The principle of the farmers' institute and farmers' bulletin may be adapted to meet various needs. The sending out of counselors to deal with the problems of reading matter, laws, markets, schools, husbandry, organizations and social conditions should be part of the work of higher institutions. There should be a traveling faculty on the firing line at all time. The publishing side of the colleges means much to those living away from centers.

The straight facts of science should be spread broadcast by the various agencies for the diffusion of knowledge. The need for the better diffusion of knowledge is evident. While probably the majority of people now accept such facts as the circulation of the blood and the rotundity of the earth, the attitudes of large numbers toward science is not all that might be desired. The higher institutions have little to be proud of when confronted with certain evidence of the longevity of popular errors. Farmers still save small potatoes for seed, sow wheat screenings, and wonder why land that has raised the same crop for twenty-five years should raise a little less every year. Parents still hang amulets about the necks of children to scare the devil away. Many high school graduates have no conception of the work Darwin did for the world and some leave college in no better condition. To how many is the world still a static affair, and to how many a medley of chaotic particulars presided over by luck? How extensively is the relation of physical to mental states realized and

how many still indulge in the physiological psychology which elected the heart as the seat of the affective consciousness? The belief in a panacea or cureall is indicated by the vogue of patent medicines. To what extent to the platforms of political parties, framed for popularity, blaze out economic and political principles and disclose the scientific attitude toward national tendencies? How satisfactory to the scientist is the wildly applauded plea of the campaign barn stormer or the logic of the Chautauquan spellbinder?

The higher institutions have a large work to perform in dispelling error, creating right attitudes toward science, improving taste and establishing standards of values, diffusing information and guiding thought. To this end the education of adults, to be carried on by the outreaching or extension activities of the higher institutions, promises much. These now conceive their work to include direct dealings with men and women out of college. Country communities have much to expect from extra-mural education.

However the most fundamental way of improving conditions for any class in society is to bring all persons, or failing that, as many as possible, who may later serve as industrial, moral and civic leaders and teachers, under the direct influence of the organized cultural agencies known as schools. When the young man or woman comes under college influence for months or years as a resident student the most favorable opportunity exists for rebuilding society. The formative and suggestible period, during the pause before practical labors interfere with mental development, is the time to strike. More and more of the country population should be brought into the higher institutions. The institution that does not reach every possible student is disloyal to civilization. I know of no more effectual way of bringing up country life or any other life than to make war on absenteeism from high school and college, provided these institutions are made equal to the opportunities at their doors.

HOW THE SCHOOL MAY INFLUENCE INDUSTRIAL LIFE.

PRES. W. M. KERN, STATE NORMAL AND INDUSTRIAL SCHOOL, ELLENDALE.

By "the school" we are to understand the public school. Today, in North Dakota, four types of such schools are to be found and I shall consider these in order:

(1) *The One-Room Rural School.*—President Harvey has painted us a picture of the one-room rural school as found in the state of Wisconsin. We might match this picture in every shade and tint and bold outline with scenes from our own state. He finds the buildings "poor, ill-kept, ill-furnished and inadequately equipped;" the surroundings the "the most depressing and demoralizing;" the teachers are "poor" and the pay "poorer;" there are "frequent changes of teachers, infrequently for the better;" the attendance of those enrolled is "irregular;" the "pupils withdraw from school at an early age;" the supervision is "inadequate;" and the schools themselves are too small to present proper conditions for successful work. Not

that all one-room rural schools deserve to be so classed. Some are taught by trained, experienced and progressive teachers, and the pupils attend with a reasonable degree of regularity, but the school here held up to our view is, unfortunately, all too common and lies at the root of what is known as "the rural school problem." The possibilities of industrial work in a school of this kind, as at present organized and administered, are about as limited as one might expect had such schools been especially designed to bar industrial training. The difficulties in the way seem almost insurmountable; the overcrowded *curriculum*, the lack of proper *facilities*, the *loss of time* due to untrained teachers and, above all, the tremendous obstructive power of tradition which has its grip upon us all. And yet, with changed conditions, this rural school, anathematized from Dan to Beersheba, might easily influence the industrial life of its particular community to a very great extent. Before this is possible, however, the three vital factors that make possible the "rural school problem" must be improved in important ways. The first of the factors is the *building*. The prevailing rural school building is one in which pupils sit to study books. It is especially designed for this purpose. Fortunately there is a better. A few years ago the New York State College of Agriculture erected on its ground at Ithaca a model rural school house. This structure was designed to serve as a suggestion in rural school architecture and it has attracted an unusual degree of attention. This house differs from the prevailing type, being so planned that the pupil may do individual work with both hands and mind. Essentially it is a school room and work shop combined. The main part of the building is about the size of an average rural school house and the work-room is added as a wing or projection. The work-room proper occupies approximately one-third of the floor space. The entire structure is artistic, home-like and sanitary. Francis W. Parker, speaking at the close of the last century, used this language: "I predict that the time is fast coming when school work and manual labor will be joined in indissoluble bonds. At no distant date industrial rooms will become an indispensable part of every good school; the work of the head and the skill of the hand will be joined, in class-room and work-shop, into one comprehensive method of developing harmoniously the powers of body, mind and soul." The Cornell rural school house, designed to facilitate the development of both mind and hand, seems to mark the beginning of a new era in rural school progress.

The second and most important factor is the *teacher*. The fact that instruction in the elements of agriculture in rural schools has so often resulted in failure has led numerous teachers and school boards to regard with disfavor any attempt to introduce this subject into schools of this class. The cause of such failure is not far to seek—it has been due, mainly, to untrained teachers, and what has been true of agriculture will prove true, in a greater degree if possible, of any attempt to introduce manual training and the domestic arts into the rural school. The problem of the trained rural school teacher is the most perplexing that confronts the rural school community. Where are these teachers to come from and how are they to be trained? In no state in the Union are the normal schools

supplying the demand for rural school teachers. They do not even attempt to supply the demand. Minnesota is just now attempting to solve the problem by organizing normal training classes in first class high schools. The state high school board has approved the establishment of such training schools, to be conducted in connection with twenty-five high schools, the object being to prepare high school graduates, students and others to teach in the rural schools. Wisconsin has likewise attempted to overcome the difficulty. In 1900 two county training schools were established in that state, designed especially to train teachers for the rural schools. Of late years the number of such schools has been increased. The cost of maintenance is divided equally between county and state. Two or more teachers are employed. The course of instruction extends over one year and includes, in addition to the subjects commonly taught in the public schools, agriculture, manual training and domestic science and art. The teachers trained in these schools find positions in the rural schools where the training school is located, and wherever such training schools have been established a better educational sentiment has developed.

The third factor is the *course of study*. It is estimated that 50 per cent of the pupils in the public schools are in the rural schools and that 95 per cent of them never attend any other school. Why should not the course of study be framed to meet the needs of the children of the community—of the 95 per cent who choose or are compelled to limit their schooling to the instruction offered in the rural school—rather than with special reference to the small percentage who are destined to enter higher schools—the 5 per cent who choose or are permitted to continue their education?

The consideration of these three factors is fundamental in any discussion of the rural school problem and the relation of the rural school to the industrial life of the community. The *building* must be designed to facilitate mental and manual instruction. The *teacher* must be trained. There is no other way. When the board elects to employ a woman, adequately trained and familiar with rural school conditions, the elements of agriculture and the household arts may be offered. Where the board elects to employ a man the course of instruction may include the elements of agriculture and shop work. The course in agriculture may include the study of (a) Soils, (b) Plant Life, (c) Animal Life and (d) the Administration of Farm Affairs. The course in the household arts might include a study of (a) Textile Fabrics and Sewing, (b) Food Materials and Processes and (c) The Administration of Household Affairs. The shop-work would naturally include the use of cord, leather, wood, iron and paint in construction.

Two great all-embracing industries are ever present in North Dakota and underlie our material and intellectual progress. They are agriculture and the household arts. The farm is our great source of wealth. Diversified farming has become a necessity. This requires an exact knowledge and training in a number of intricate lines of production and an understanding of soil and crop requirements. Progress in the household arts; the intelligent, economic and wise administration of the affairs of the home; are a sign of advancing civilization. Through these two fundamental

primal community arts, common the world over, ever present in North Dakota, education must relate itself to the industrial life of the community if it is to do so at all. There is no other way.

What is impossible for the present-day isolated rural school is entirely possible in (2) *The Consolidated Rural School*. The consolidated rural school is, at the present time, found in approximately one-half of the states of the Union. In many of these schools no secondary work is attempted; in others the secondary work extends over several years. A brief consideration of one such school will indicate the marked degree to which its courses may be made to relate to the industrial life of the immediate community. The John Swaney Consolidated School, found in Putnam county, Illinois, may be taken as typical of the best schools of its kind. In this particular school the school grounds proper cover twenty-six acres. The building is two and one-half stories with four recitation rooms, two laboratories, a large auditorium, offices, a manual training shop and a girls' play room. The building was erected by the farmers of the community at a cost of \$16,000. The school plant is heated by steam, lighted by gas from the school gas-plant and supplied with water by an air pressure system. There is a barn of sufficient size to house twenty-four horses. An abandoned school-house near at hand has been remodeled for a teachers' residence. Four teachers are employed, one for the elementary grades, a second for the intermediate and grammar grades, a high school assistant who, in addition to other subjects, instructs in the household arts, a principal who teaches, as part of his work, agriculture and manual training. The course of study for the grades is that of the common schools of the state; the high school offers the usual academic subjects but modifies the science course to include agriculture. This begins with the study of seeds of garden vegetables, the common grains and grasses. Soil physics—the origin, composition and characteristics of different soils; systems of farming and crop rotation; animal husbandry; horticulture; the household arts and manual training thus constitute a part of the curriculum. The Agricultural College of Illinois has succeeded in establishing, at different points in the state, twenty-three sub-experiment stations. One of these stations joins the John Swaney school campus on the east and the school becomes a clearing house for the station whose work the pupils are privileged to inspect. In such a school instruction is had under almost ideal conditions. Here life and school are intimately related. Both young men and young women put into practice, on the farm and in the home, the instruction received in the school. This type of school is said to be the most expensive of all public schools, but if expensive it is certainly vastly more efficient. What is possible in Illinois is possible elsewhere. Commissioner W. T. Harris, in speaking of schools of this type, has said: "Upon the success of this movement rests the chief hope for the improvement of the rural schools."

(3) *The Village School* has all the possibilities and opportunities open to the consolidated rural school and belongs practically in the same class.

(4) *The Secondary School*. The first secondary school in America was the Boston Latin School whose object was to prepare for Harvard College.

Its courses were strictly classic, planned, not for the majority, but for the minority. Later, science, and still later, English, each in turn, won a place in the traditional curriculum. And today the modern industrial and technical world insists that the secondary course shall be further broadened, and that the secondary school shall provide for the young man who is to become a mechanic or engineer instruction as fundamental in his calling as are the classics for the young man who chooses one of the traditional professions. Mr. W. Hodge, International secretary of the Young Men's Christian Association, speaking in 1895, stated that, of the 13,000,000 young men in the United States between the ages of 16 and 35, only five in every hundred have been prepared by education received at some kind of a school for their particular vocations; 95 out of every 100 have not been so prepared. These five had received bread-and-butter training in the dead languages bearing a direct relation to their particular professions. They are fitted for their wage-earning capacities by the training received at high school and college, university and professional school, while the ninety-five, denied similar opportunities, are obliged, in the great majority of cases and amid great embarrassments, to fight their way for a livelihood by experiment and imitation of other workmen. It was in protest against this exclusive training that Sir Lyon Playfair wrote: "In a scientific age and in an industrial section an exclusive education in the dead languages is a curious anomaly. The flowers of literature should indeed be cultivated, but it is not well to send men into our fields to reap the harvest when they have been taught to pick the poppies and push aside the wheat." Fortunately modern education holds as important and fundamental relations to certain important sections of the world's activities as it does to law, medicine and theology. The direct relation that manual training bears to the materials and processes of numerous industries and technical callings marks the golden opportunity for the modern high school. Where manual training has become a part of the high school course future wage-earners are given a broad insight into, and understanding of, the vital facts in the whole field of industrial activity, and are prepared to enter into intelligent relation with the industrial world. The present deep concern throughout the country for the improvement of the rural schools, in order to make them stronger factors in rendering farm life and home conditions in the rural communities more attractive, profitable and inviting, has resulted in great good. Only recently the neighboring state of Minnesota, by an act of its legislature, established courses in agriculture, manual training and domestic science in a number of secondary schools. State aid makes such courses desirable. The state department has designated ten public schools in which this instruction is offered and boys and girls from the farms are urged to take up this practical training. State aid is certainly desirable, but whether it is available or not every first-class high school in North Dakota ought to offer facilities for secondary education looking towards industrial occupations and the technical professions equal, at least, to those looking towards the clerical or mercantile callings or the traditional professions. Such schools offer courses in Latin for at least two good reasons; for the high degree of mental training involved,

and for the economic value to prospective students of law, medicine, theology, etc. For precisely similar reasons courses in manual training should be offered; for the fine character of the training and for the economic bearings in industry and the technical arts. Calvin Woodward is authority for the statement that the student who has taken a regular course in a strong manual training school will, at the end, have mastered the tools, machines and underlying principles of over a hundred callings. He will, moreover, be able to determine with considerable accuracy the calling of his liking and will have banished many whimsical notions as to his own powers and capacities.

There has come into prominence of recent years, moreover, a large number of high class callings commonly designated as professions. These vocations require specific training in the physical sciences, mathematics, modern languages and the mechanic arts. For the successful pursuit of such courses manual training is fundamental. In many of them some form of manual training is imperative. An examination of the courses of technical instruction will disclose the importance that the technical school attaches to manual training. To illustrate: The Case School of Applied Science offers courses in Mechanical, Electrical, Civil, Metallurgical, Mining and Structural Engineering, and in each of these courses some form of manual training is prescribed, either mechanical drawing, joinery, pattern making or forging. Moreover, it is stated on good authority, that there are three times as many skilled positions open to young men as there are young men to fill them, *while* there are three times as many young men awaiting commercial and professional positions as there are places to be filled. The demands of the industrial and technical world mean that the curriculum of the modern secondary school must be broadened; it must adapt itself to modern conditions; must touch modern life, modern forces and modern thought if it is to influence to any great extent the industrial life of today.

EXTENSION OF SCHOOL INTO LIFE; THE TEACHER'S SPECIAL PREPARATION FOR THIS.

SUPT. E. M. SHERRY, ROLETTE COUNTY.

Extension of School into Life. INTO. Well, the use of this particular preposition would indicate that School is one thing and Life another and that it is deemed advisable to project the one into the other.

Before the school can be extended into life, there must be life in the school. How this may be brought about will be told in a subsequent paper. But there must be life in the school, extended into, thrust into, or spontaneously generated within the school itself. In order that there may be life in a school, there must be a real living, aspiring and inspiring teacher, with a heart pulsating with the blood of a master, a leader, one worthy to be followed.

In the past and perhaps in some schools of today, we find teacher and pupils in the fourth and fifth grades tussling with material that

savors not the least of life or of practical experiences, or of anything that may come into the experiences of the pupils constituting the school. For instance, take the subject of arithmetic. In Milne's Standard may be found these problems, "Reduce 3-10 of a pint to a fraction of a bushel," "Reduce 8-9 of a pound to a fraction of a ton." Well, the teacher who in actual business transactions would charge one of his pupils for 8-9 of a pound of hay or 3-10 of a pound of wheat would very soon be forced out of business.

Or take the subject of grammar. "Jane milks the cow." "Cow" is a pronoun and stands for Jane; if she didn't how could Jane milk her? Instead of teaching the fourth and fifth grade pupils to parse the cow, it might be of more vital and lasting importance to teach him that it will not prove profitable for Jane to milk a scrubby old cow that eats fifty cents worth of good feed per day and yields thirteen cents worth of thin milk; that some mixtures of feed are better adapted for milk than others; teach him how to compound and compute these different rations. Teach him that some breeds of cows are milkers while others are better for beef. Teach him the good points about each, so that when he quits school, he may know what constitutes a good milker or beef. Teach him that certain parts of the beef are more toothsome than others, and where these better cuts are located and their names and relative values in preparing an economical meal. The writer is able to buy from a nearby butcher, choice sirloin and porterhouse steaks at seven and 8 cents because they have bone in them, whereas he would have to pay ten to twelve and a half or fifteen cents for round steak because it is all meat.

Better teach the boys and girls to observe some of the habits and characteristics of the cow than parse her. How about her teeth? How does she lie down? Rise? How does she move her head when eating grass? Why?

Is it necessary for the rural teacher to make any special preparation for his work that he may extend his school into life? How shall a matron teach a girl how to make wholesome bread if she herself has never made any? How shall a professor in a medical college teach one to diagnose a case, remove an abscess, amputate a limb, separate a man from his annoying appendix and pocket-book if he has never made special preparation to qualify him for this particular work? How shall a raw recruit organize, train, marshall, manoeuvre his troops in such a way as to conquer a wily and powerful foe if he has never participated in army life? How shall a minister of the Gospel show one the way of salvation if he know not God? How shall a rural teacher lead his pupils along the highways and byways that lead not only *into* life, but may be actually *IN, surrounded by*, and a part of life unless he, too, shall have first made preparation for this particular work?

What was it Garfield said? "A university is Mark Hopkins on one end of a log and I on the other." One would infer from this that Mark Hopkins had drunk deep of the waters of life, and of his ripe and rich experiences was able to lead his pupil along the safest, surest and most practical ways of life.

You might infer from this, then, that the writer believes that the teacher who would lead his pupils into life must have maturity of years, and of judgment, so that he may differentiate between the true and the false, that which is worth while and that which is useless. He must have lived somewhat of this real life himself. Must be in a measure, able to take a prevision of what probably lies before his pupils and be capable of making them see clearly and definitely an ideal; not a visionary, impossible ideal that can in no sense be realized, or approximated, but a conception of the successful man or woman that he or she would wish to become. Having established this ideal, then bring into the school life just such work and material as will qualify his pupils for this success.

What, then, shall constitute his special preparation? As we are dealing with rural schools and rural teachers, we must assume also that rural life is what is to be prepared for. And every one knows that rural life does not mean head work only, nor hand work only, but a happy union of the educated head and educated hand will make the rural life a fuller life. Therefore, the teacher needs, besides the attributes above mentioned, an extensive and intensive academic and professional training, must be conversant with the different phases of rural life which his pupils will in all probability lead. He is not supposed to be an expert mechanic, architect, agriculturist or horticulturist; for if he were, he certainly would command such positions and salaries as would stagger the most extravagant school board. No, we do not expect him to be even a fair hand at all these things that make up the activities of rural life, yet, if he is to extend his school into the life about him he must fail unless he take a live interest in these things and is able to distinguish between the essentials and the spurious. And the more he knows about these things, other things being equal, the better fitted he is to successfully combine school with the activities of rural life.

While we would not ask him to take a full course at the agricultural or industrial college, a short course in one or both of these institutions would add materially to his equipment. Should even this not be possible, he should at least take advantage of the free correspondence courses offered by our agricultural college, supplementing this with a few good books on the sciences connected with rural life. He would add to his equipment should he make frequent visits to the mercantile establishments of his community, the shops, the best conducted farms, and take note of the best things here available. He would gain by intercourse with the professional and business men of his community, getting their ideas and opinions as to the strong and weak points of school life as a preparation for future activities of his pupils.

This is not all, but a small part of what may be expected of him who would lead his pupils out from the rural school room ready to take upon himself the duties and responsibilities of life with the positive assurance within himself that he knows what is expected of him and knows equally well how to realize these expectations.

EXTENDING "LIFE" INTO THE RURAL SCHOOLS.

SUPT. MINNIE J. NIELSON, BARNES COUNTY.

"Life is real, life is earnest," and children must, if we want them to do their best, be brought very close to that reality and that earnestness. In the rural communities in the past we have not been enough in earnest about this school business. We have all been so busy raising No. 1 Hard and paying off the mortgage on the farm that the old school house standing out there on the prairie has often been permitted to *run itself* and consequently has *run down*. In many cases the paint has peeled off, the fence is in a shattered condition, if indeed there is a fence at all, no trees, the yard full of weeds, while in the interior the walls are dingy, the blackboards worn out, the stove jacketless, the floor is rough and large cracks appear between the old boards where dust collects and causes dark clouds to arise when the poor tired teacher wields the broom at night. There are no maps, no globe, no supplementary readers, and the whole affair presents an indifferent air as if nobody were in earnest—nobody "alive" to the needs of the school.

These discouraging results cannot all be attributed to the lack of tact and good sense on the part of the teacher. The chief responsibility for the dearth of interest and the death of progress, therefore the lack of "life" which appears in many of our rural schools rests upon the community whose children attend these schools. Our rural neighbors in most cases are not impressed with the profound truth that *their* children are entitled to all the available opportunities for the intellectual and moral culture which are offered so abundantly to the children of our cities and towns. A teacher is hired, the contract signed, and the responsibility of the school officers usually ends right there. Therefore my first plea is that in order to put "life" into the schools we must put "life" into the school officers that they may provide properly constructed and equipped buildings. How can that be done? The annual school officers' meetings held in every county of the state have been of inestimable service in awakening school officers to their duty, but these meetings are not enough. As are the people so are the schools. If the ideals of the people are low their representatives have low ideals and the work of the board is poorly done. Therefore *arouse, enliven* the rural communities.

The facts that I have presented seem like a dark picture and yet there is a bright side, for the clouds still have silver linings.

The people of our rural communities were never as well off materially as they are today. The fight for existence with the stern realities of pioneer days has ceased and they have more leisure now to live and to learn.

In Barnes county last year we endeavored to put "life" into our rural schools by having sectional "teachers and parents meetings." We held meetings in six towns in different parts of the county and invited not only the school officers, to meet with the teachers, but also the fathers and mothers, men and women of the adjacent communities. Many came and spent the day together discussing questions of mutual interest, such

as "School Sanitation" (laying special emphasis upon ventilation, individual drinking cups, closed water tanks, etc.), "How to Beautify Our School Room and Surroundings," "The School and Home," "The Need of Good Roads." From personal experience I can recommend these meetings as potent forces in awakening interest in the rural schools. We acknowledge great indebtedness to representatives from our normal school and university for valuable aid in conducting these meetings.

We have found that what we called "indifference" in our rural people was often ignorance and thoughtlessness. They had not realized that conditions were not as they should be in the school room in which their children spent seven or eight hours every day for five days in the week, but when the evils were pointed out they saw the need of change and in many cases the vision resulted in deeds. Of course all corrections were not made in one round, so this year we again planned a campaign for improved conditions, this time on a much larger scale. Instead of having meetings only in the towns we are arranging for meetings in every township in the county so that we may come in contact with more of the people. We hope soon to have a stereopticon and show in pictures the *ideal* in school surroundings—the interior and exterior views of beautiful schools where the people of the communities are "alive." Hasten the day when the consolidated township school with its assembly room will stand as a social center, where parents, teachers and friends may gather and "live" for at least one evening a week.

When the people of the community are *in earnest* the school officers will be and when the school officers are *in earnest* the school buildings will be what they should be and then what else is necessary that "life" may be found in its reality and in its earnestness in our rural schools? The "live" teacher is necessary—a live community will not suffer a dead teacher and how much a live teacher can do to enliven the community. "Like excites like." "Silent forces rule the world." Therefore the teacher must be in earnest. The teacher must be happy in her work. She above all others should have good health. In some cities teachers must undergo a physical examination and the time is coming when that will be required every where. "Habitual cheerfulness is spontaneous only in perfect health," we are told, although the confirmed invalid may attain unto it, for it is contagious.

Fun is as essential to a good school as it is to a happy home. Joy and love bring health and health is "life." Teach the child to feel the joy of loving service. The old German tale of the little girl whose loaf of bread was sour because she had a sour look while making it is often verified. The "live" teacher will teach the child that

"Life's a mirror. If we smile
Smiles come back to greet us,
If we're frowning all the while
Frowns forever meet us."

Life is growth. When we cease to grow we cease to "live." Therefore the live teacher will teach the child to grow by teaching him to think. "The letter kills but the spirit makes alive." Someone has said, "The power

to think is the very breath of man's nostrils, and marks the difference between a joyless, automatic, adherence to rules, and a warm glad growth, pulsating with life and happiness." Each year finds us a little nearer death or a little more alive. Are we, in our educational system in North Dakota, becoming more alive or are we making the accumulation of knowledge the primary object and consequently instead of developing strong reasoning faculties, and an active imagination, we so stuff the child mind with unassimilated facts that its imaginative and reasoning powers are clogged and the child is not taught to think, his mind therefore does not "grow." The school prepares the child for life and nowadays the three "R's" are not deemed sufficient for that preparation. The school must take into account the three "H's"—head, heart and hand. This is shown in the strong trend toward all kind of training for the hand, and this hand training can be carried on in the rural school as well as in the city school. The live teacher knows this and she also sees that good music and good literature are supplied for the heart. She realizes that the day has past when we teach "There's a Hot Time in the Old Town Tonight," and "The Boy Stood on the Burning Deck, Selling Peanuts by the Peck."

As expression is the business of life, cultivation of the means of expression should be the business of the live school.

We remain young only so long as the mind is active. Length of life is not measured by years, many die of old age in their youth. Some are never alive, while others remind one of "a kernel which is full of germinal activity." Teachers, do not let your pupils die of old age in their youth. Keep their minds active. Do not let them sit idly in their seats, plan their seat work, teach them to think by doing. Teach them to delight in a beautiful sunset, in the song of the bird, in the tint of the flower. Couple up closely the outdoor and indoor in experiences. This may be done *First*, by oral descriptions; *second*, by pictures; *third*, by the objects themselves. The first is the least effective. The second is better and the opportunities are great. Under this head bring in and study the pictures of horses, cattle, hogs, sheep, chickens, dogs, cats, etc. Twenty-five cents spent in postal cards would help greatly in putting "life" into the geography and history lessons. Railroad folders, breeders' catalogues, live stock journals, bulletins from our State Agricultural College and from the Agricultural Department at Washington are most helpful in instilling "life" into our school work. The third mentioned—the objects themselves—is the most effective. Why not bring into the school and study as a basis for interest in language, number, etc., the animals and plants themselves. Hens and chickens, dogs, kittens, pets of all kinds, the different kinds of grains, vegetables, collections of flowers, grasses and weeds. The Agricultural College is working towards this end in creating an interest in seed collections by offering to identify the various seeds collected and sent in by the children.

A very fruitful source of vitalization is for the teacher to see first class, lively, wide-awake teaching. The city teachers have visiting days, why not the rural teachers? How could a county superintendent do better service than some day let a poor, unresourceful teacher take his horse

and buggy and go and visit a live up-to-date teacher, while he, the county superintendent, puts new vigor into the school at the cross roads by teaching those boys and girls for half a day or more.

A rural teacher is apt to be like a coal, which when separated from the other live burning coals of the fire-place loses its warmth and soon dies out. Our rural teachers need the enthusiasm obtained from frequent conferences with their co-workers. Teachers' clubs are helpful to this end. I know of one club composed of five rural teachers, organized last September, which meets every Saturday. They go from one boarding place to another and these meetings have been of inestimable value in taking "life" into the schools over which these teachers preside.

Another plan that has worked in giving teachers opportunities to see good teaching was described by the Superintendent in charge as follows: "The first of a series of five meetings was held at Barrington November 10th. Seventeen teachers were invited. All were present. The morning was spent visiting especially the lower grades. Reading and language were emphasized in the first two grades. In the other grades that subject was presented which the teacher could teach best. The children were excused in the afternoon and each room was visited. This gave opportunity for a general discussion of the work of the morning, also an explanation of any exhibits of work about the room. The spirit of these room conferences may be expressed thus: Hunting for good things to appropriate."

Why could not this plan be quite generally followed and the rural teachers be invited into the adjacent towns for a Friday meeting instead of Saturday as we now do. Of course this all means work, but the world was not made for sluggards, so "Let us then be up and doing with a heart for any fate, still achieving, still pursuing" for if thou

"Do well thy work
It shall succeed
In thine or in another's day:
And though thou lack the victor's meed
Thou shall not want the toiler's pay."

DEPARTMENT
OF HIGHER AND PROFESSIONAL EDUCATION

MINUTES
OF THE DEPARTMENT OF HIGHER AND PROFESSIONAL EDUCATION.

WEDNESDAY, DECEMBER 29, 10 O'CLOCK A. M.

The meeting was called to order by the president, Professor Andrews. Secretary Knowlton being absent, Troy J. Wilson was appointed secretary pro tem. President McFarland and Dr. Reudiger were absent but had sent their papers to the session. By motion it was decided to have these papers read.

Moved and seconded that a committee be appointed to collect and prepare various educational bulletins for exhibition at the next meeting of this association. Carried. The committee as appointed is: J. M. Gillette, C. B. Waldron and Professor James.

Moved that the member of the executive committee from this department take up this matter and carry it forward. Carried.

Professor Waldron was nominated as member of the nominating committee from this section, but he declined and by motion the chair was elected as member of such committee.

By motion the session was adjourned.

TROY J. WILSON,
Secretary pro tem.

FRIDAY, DECEMBER 31.

The section met at 9:45 a. m. at the call of President Charlton Andrews. Program was opened by Professor Clyde R. Travis, followed by President Cregan and Professor Kennedy, each offering a paper with reference to the extent of higher education to the town community, to business interests and to rural communities. After reading of the papers, discussions were omitted and the business of the section was taken up immediately. The election of officers followed, M. A. Brannon of the University, being elected President, Arland D. Weeks, vice-president, P. G. Knowlton, secretary, M. A. Brannon, delegate.

M. A. BRANNON,
Secretary pro tem.

MEANS OF EXTENDING THE INFLUENCE OF HIGHER EDUCATIONAL INSTRUCTION INTO LIFE.

BY GEORGE A. M'FARLAND, PRESIDENT OF THE STATE NORMAL SCHOOL AT VALLEY CITY, NORTH DAKOTA.

Some one has said "the hope of democracy is in educated leaders." This by many has been considered a universal affirmative proposition. Slowly but surely our people have come to realize a larger truth; that the hope of democracy is an educated citizenship; this truth includes the former.

Under the influence of the former, the early New England fathers founded Harvard College and established grammar schools to fit young men for college, but as the vision of the American people is broadened they have begun to see that the education of democracy must reach the masses and fit them for citizenship; they have come to understand that self governing states do not exist for security alone or for fighting power, but for the intellectual and moral progress of their citizens. It is, therefore, the function of the state not merely to encourage but to insure an educated citizenship. The state must foster an education that shall aim to raise the spiritual character, industrial efficiency, political capacity and patriotic enthusiasm of the entire people. An educational system supported upon the narrow and uncertain principle of voluntarism aiming to create an educational aristocracy with a view of providing leaders, has gradually been found to be inadequate to the needs of democracy, and public schools for all the people and provided by all the people, are the result.

The ordinance of 1787 providing for the government of the old Northwest Territory is the first clear, unmistakable and emphatic utterance that schools and education are the sure foundation of the safety and perpetuity of democracy in the clause that declares that "Religion, morality and knowledge being necessary to good government and the happiness of mankind, schools and the means of education shall forever be encouraged."

The constitution of Ohio, the first state to be organized from the Northwest Territory, in its section relating to education contains practically the same important clause; similarly read the constitutions of the other state carved from this territory, and more than twenty others in the central and western part of our country that have been influenced by these five great states. With some variation, section 147 of our own state constitution reads: "A high degree of intelligence, patriotism, integrity and morality on the part of every voter in a government by the people being necessary in order to insure the continuance of that government and the prosperity of the people, the legislature assembled shall make provision for the establishment and maintenance of a system of public schools which shall be open to all the children of the state of North Dakota, and free from sectarian control."

It is unfortunate, I think, that the fathers of our state narrowed the principle announced in the ordinance of '87 by the use of the word "children"

where the word "people" should appear. The whole movement of education in this country has been an expansion of public education so as to reach more people in more ways. Michigan, one of the earliest sections of the old Northwest to assume statehood, was the first to found a state university supported by all the people and open to all the people without limitation as to age. Following her example and doubtless to some extent under her influence, other states westward have likewise founded and maintained state universities and have increased an increasing provision for education by providing schools not only for children, from the kindergarten to the high school, but universities, colleges and technical schools; and other higher institutions of learning, that minister, not only to the higher life of the people, but support and shape their industries, help labor and learning go hand in hand and lead in the solution of great public questions to the promotion of patriotic ends. This extension of education is further shown in laws enforcing attendance at our common schools, requiring a larger number of hours per week and more weeks per year by multiplication of courses of study and the establishment of trade and professional schools.

Following but parallel to this enormous expansion of education for the young we are witnessing an extension of schools into life. Correspondence courses, play ground movements, evening schools, special language schools for foreigners, vacation schools, and the creation of recreation and social centers at public school buildings, lectures under the auspices of public education, are all in the interests of people nominally outside the school. Seventeen years ago the city of New York concluded that the expensive machinery and equipment of its educational plants could be made to produce a larger return to the community by the addition of free lectures for adults. All or nearly all of the agencies just named are for children of school age; the free lecture courses provided for the education of adults.

The lecture has always been a potent means for the communication of knowledge and the education of the people. Many of the old universities of Europe, in the days when manuscripts were scarce and expensive, and books did not exist, were founded around the lectures of a single great man who read manuscripts, expounding and explaining hourly to hordes of students; when the master mind moved from one city to another, the university moved. The great Abelard, banished from Paris, was found in his seclusion by hundreds of his disciples and a university started in the wilderness. The influence of the lecture platform in American life is too potent and far reaching to need more than mention here; the work accomplished by Wendell Phillips, John B. Gough, Henry Ward Beecher, George William Curtiss, not to mention General Gordon, in his efforts to knit again the North and South, are splendid testimonies to the influence of public speech in shaping the destiny of a people. The human voice, backed by a wealth of ideas from a soul afire with truth is the greatest educational agency the world possesses. Shall our state educational institutions to whom is entrusted the work of bringing the higher learning to the very hearthstones of the common people fail to make proper use of this great power?

A city librarian tells of a young boy who asked for a book called, "How to Get Educated and How to Keep So." Unconsciously this lad spoke a great truth. Our educational system has expanded marvellously for childhood. The great movement in the first half of the present century ought to be an extension of education into adult life. Thus holding the vantage ground begun by the common schools, and enabling men and women to "keep so." It is not necessary to create new institutions to accomplish these results. The common schools make the beginning, the higher institutions creating new agencies within themselves should promote the education of adult life.

New York is now conducting its eighteenth annual free lecture course. It started in six schools. There are now 150 lecture points and a total of a million and a half listeners in that city alone. It is a modern extension of educational agencies into the life of the people. It is based upon the principle that education should be unending, and that the intelligence and taste of the adult can be cultivated as well as the children's. The permanence of democratic institutions would be assured if the high courage, noble purpose and frank idealism of the average college graduate could be preserved through life, and if, in addition, those who have not enjoyed the privileges of the college career might be diverted some part of each week from the daily routine of business, profession or industry, to considerations that culminate in larger and nobler men and women, as apart from those that culminate in richer bank accounts, more eloquent pleas and sermons, and a greater yield of corn and wheat.

The laws of our state already recognize the free lecture as a legitimate phase of public education in the provision it makes for free lectures in connection with teachers' institutes, the original aim of which was citizenship, as well as in its provisions for farmers' institutes and school directors' conventions. On the broad principles I have so hurriedly alluded to our state institutions might, with or without further legislation, adjust themselves to do as much as their means will permit in behalf of free lectures for the people by organizing lecture centers. For the present, perhaps for all time, it would be better to prepare to meet calls made by lecture centers organized and inspired by forces outside themselves. Something has already been done to make these institutions useful to adults beyond their membership and to extend their influence beyond the community in which they have their existence. Really these institutions are spiritual entities. Every citizen of the state has membership in them. Our state university has recently issued a circular announcing that its direct usefulness is not limited to its student body or its immediate environment, and that it desires to be an instrument of immediate and actual service to its wider constituency. It is prepared to answer calls for lectures upon a number of timely and practical topics by its leading professors. The work of our Agricultural College among the farmers of the state, at county fairs, and other public meetings has been well known for a number of years. The results of its work as they are coming to the surface year by year in the agricultural life of our state, justifies its existence perhaps in even greater degree, than the work it is doing at Fargo. The State Normal

School at Valley City, a few years ago, issued a circular offering a series of lectures to institutes, teachers' associations, school directors' meetings, women's clubs, and other organizations where it felt its people might arouse an interest in teaching and other general problems of education, and it is at present carrying out its policy to serve education outside of its own membership by sending members of its faculty to assist county superintendents, not only in public meetings where they may be called, but in visiting the rural and village schools where there is opportunity to meet the teachers and pupils as well as parents, in public address, or by means of model lessons. Every part of the public school system should be made of larger service to their constituents by sending books, pamphlets, lectures or data to any who may not reach its doors, but who may desire to learn.

By this policy the institutions will serve themselves and contribute to their own enlargement as they reach and serve the people. They will be enriched by public confidence and public support, financial and moral. Young people will crowd their doors in increasing numbers, for there is no better method of recruiting membership than by telling addresses by those connected with the school and by personal acquaintance. I remember, today, with gratitude and appreciation, an address of the great educational leader, Burk A. Hinsdale, in the little village community near my home that was a leading influence in my decision to attend the college over which he presided. Generally, I think boys and girls like to go to a school whose president, lecturer, or some other professor they know or have heard, or whose parents deciding for them, have come into such relationship with the institution. So it seems to me that our institutions are not absolved from this duty by any consideration except that of funds, and that the public should be aroused to provide.

There are practical considerations, however, that should be noticed. As a rule, people appreciate most that which costs something. The men and women of our schools are servants of the state and, within proper limits, the authorities may require their services at the university, or at Minot, Drayton or Oakes. Necessary expenses should always be paid by the locality served, and if possible, enough more to provide for "wear and tear" and to keep alive the interest of the speaker. There might be damage to the home work of the school if compensation were so ample that regular instructors would be induced to work up business for themselves or encourage numerous outside engagements.

Then too, the expediency of absence from three or four classes of twenty-five young minds each attuned to the special work of the instructor, in behalf of any enterprise at a distance should be considered by the authorities before permitting breaks in the regular class work.

The best plan is the system of extension lectures as now provided by many of the larger and older universities. Many of our older and stronger Normal Schools have lecturers, or institute conductors as they are sometimes called, who respond to many such calls. They do not aim at the special or technical discussions which some of the other members of the faculty might present, but nevertheless appear before the public with the

prestige of the institution and do much good. The efficiency of the agricultural colleges of our country among the farmers is chiefly due to the fact that a few men have large practice in public address and thus gain facility in presenting scientific knowledge in terms understood by the common mind.

In fact it may be doubted whether the regular professor bound to the class room for five days a week is the best man to present even his own subject to the general audience. The exhaustive scientific treatment of the specialist is usually beyond the consciousness of his hearers. The situation demands popular treatment, both in form and content, and as a rule, the man who knows his audience, in other words the practiced public speaker, will secure results surpassing in value his more erudite associate from the special department.

By popular treatment I do not mean that entertainment should be the aim. In 1891, when the question of school extension was first in consideration by the National Educational Association, it cautioned against extension lectures as means of entertainment, and emphasized the great importance of home study in connection with the lectures given by our educational institutions. The extension work by means of lectures should be organized under the advice and direction of the institution furnishing it, thus avoiding much waste; the system will be more useful if the logical or continued series of lectures can be arranged. The aim should be to enlarge the horizon of life, increase efficiency, arouse patriotism, give definite knowledge, and add to the training which citizenship requires.

Public functions conducted by the elementary and secondary schools are valuable opportunities for our state institutions for occasional addresses. I believe it would be well for the institutions themselves, the well being of the state, and the general cause of education, if our state institutions, one or several, might be represented at convetions of farmers, teachers' institutes and associations, public school directors' meetings, district and state meetings of women's clubs, state and district meetings of churches and Sunday Schools; in fact where any group of people for a more or less special aim are assembled, I go further and assert that some representatives of our state educational institutions in sympathy with their special work, and competent to throw light upon it, *should* be there in their midst at the lowest possible expense to them, to educate and to encourage.

For the present in North Dakota there should be a definite movement toward arousing the people to the value of study clubs as centers of the life. When the people begin to call upon our institutions for public addresses and leadership and realize their value, funds will be provided by which special extension lectures may be supported. Meantime let each institution do all it can by means of public addresses for the education of the people.

THE LECTURE AS A MEANS OF EXTENDING THE INFLUENCE OF THE HIGHER EDUCATIONAL INSTITUTIONS INTO LIFE.

PROF. WALLACE STEARNS, UNIVERSITY.

In the Republic of Letters there is no caste. The benefits of learning are for all. Wisdom is barred from none. The colleges and universities are all seeking the same end—the democratizing of knowledge. But it is not possible for all to assemble and to reside for even a brief period at these academic centers. Further, by reason of the lack of equipment and facilities and the resulting loss of enthusiasm and opportunity for prolonged concentration, college and university life is something prohibited to the great majority of people. How, then, are these worthy ones—no less deserving because of hindrances—to be reached?

If Men cannot go to the mountain, then must the mountain go to Men. The college and university must serve as a distributing center, sending out its stores into the several cities and hamlets of the surrounding country.

A shining example of what might be done is to be found, for example, in the University of Wisconsin or in the University of Chicago. The former institution has verily become a university of the people, ministering to the citizens of the state in every walk of life. The latter institution for the 5,000 students enrolled in Chicago numbers twice as many students enrolled in the several extension departments and lecture groups throughout the country. For a number of years the University of North Dakota has been doing pioneer work in this field, and the present year the several lecturers and topics were assembled in a folder, the size of which folder really surprised the committee having the matter in charge.

The ideal method of procedure is to arrange a series of lectures with conferences, daily readings under direction of the lecturer or his assistant, and a traveling library of selected volumes. In older sections of the country where towns are large and life has become somewhat composed, such a plan is feasible. But in the Dakotas, life is too restless, and it is my opinion that the most that we can hope for yet is a lecture course or an institute covering two, at the most three days with lectures, round tables, conferences and special evening entertainments. We must for a time be content with great labor and small returns. In smaller villages and hamlets single lectures that shall entertain and incidentally instruct, must, in many instances at least, suffice. A series of such entertainments by different members of a college faculty on topics suitably correlated would be a boon appreciated in any community. A most useful feature in this connection would be musicales and musical lectures. In all cases the lecturer should provide syllabi giving full outlines, references, and a working bibliography. Whatever else is done an audience should be sent away with a hunger and a will to seek further.

We are a staunch advocate of the stereopticon as a means of grace. The eye reinforces the ear. People who have looked out at the window during days and weeks of winter weather will be only too glad of an opportunity to see views of other places and scenes. And seeing they will see and peradventure they will, unwittingly perhaps, understand. In every lecture course or series there should be one or more stereopticon lectures, and many single lectures can be of this kind. After several years of experience, three of which have been in North Dakota, we are more than ever convinced of the soundness of this view. The situation in these new states far north where winters are uncertain, starts particular problems. Electricity is practically out of the question and oxy-hydrogen light is by reason of ever-impending railroad blockades, too uncertain. After canvassing some of the larger towns we turned our attention to the villages, where as we all know, help is most needed. The only available device was a stereopticon using acetylene gas. This machine was capable of better service than our untried skill could make of it, still even we made something of it. The lantern, screen, slides and other paraphernalia filled two large suitcases, and in towns with a population of two or three hundred was better than sitting around the fire to hear the wind blow. We mention this personal experience to show what could be done under the most difficult conditions. We have this to say: We have always met with a cordial welcome, have always found the people indulgent, and have always been asked to come again.

There is no limit to the number of subjects. Popular geology, the constellations, forestry, the protection of birds and game, the common herbs and how to know them, our song birds, travel subjects, without number, pure water supply, and a myriad of similar themes afford opportunity for illustrated lectures. Then there are a host of civic and municipal questions. Farm gardening, landscape gardening, agricultural topics, and subject dealing with house and home; engineering projects as the Panama Canal, any of our irrigation projects; the shipping of our great lakes, our national waterways, all provide material. And we must include a long list of subject that deal with literature, history, religion, art, and cognate lines of interest. It would be a winter well spent in one of our Dakota towns to become acquainted with this great world in which we constitute so small a part.

The way to do a thing is to do it. It is not a matter of theorizing; it is a matter of doing. We cannot expect people to come and take us by violence. We must go out and proclaim our wares, distribute our samples, and hope confidently for sales. Not all men are adapted to this work, but we can all, nevertheless, develop a modicum of ability.

We must look to the school houses and to churches and to all centers where people are wont to gather. We cannot stand on ceremony nor wait for ideal conditions for ideal achievements. We must be content with small beginnings and with small results and we must keep up our efforts until a growing state with growing culture and a lessening desire for migration and money-getting shall provide us with an arena like that for which we now envy our fortunate neighbors in older and more staid communities.

FARMERS' AND TEACHERS' INSTITUTES.

PROF. J. H. SHEPPERD, AGRICULTURAL COLLEGE.

The teachers' institute—the teaching of the teacher—is something that should not be made secondary. Teachers' institutes offer a means of influencing for gradual or radical changes such as may be desired.

It represents suggestive teaching to experienced people and should be done by those who are practical and thorough. It reaches from twenty to thirtyfold more people than are addressed—young, impressionable people—it is a hand which is moulding the active world a score of years hence. Persons whose choice of occupation are being slowly formed; persons whose habits of life are being started; persons with whom understanding is an attraction come in daily contact with the teacher whom the institute speaker teaches.

The state superintendent informs me that twenty-two teachers' institutes of one week duration, and eight summer schools of three to six weeks in length, each representing twenty counties, have been held during the past year. That fifteen hundred teachers attended these short course schools, which is at least one-fourth of the teaching population of the state. If each teacher should come in contact with thirty pupils during the year, we have forty-five thousand pupils reached by the institute speaker, or about one-twelfth of our total population.

These are the young, impressionable one in ten to twelve of our population, which gives greatly added force to the influence which it will yield. It is needless to say that great care should be taken as to what is taught and what impressions are conveyed. No feature of education is so far reaching as the meeting of teachers by live, enthusiastic, brilliant, impressive men who come in contact with those who are educated and experienced, and who need the material offered for immediate use as is the case with the teachers of North Dakota.

There is a state-wide population in North Dakota interested almost to a man in agricultural production. Farmers have business and family duties which will not allow them to leave home—hence the farmers' institute alone can reach them. They are interested in advanced problems of production, which offer possibilities of improvement so vast that they constitute a heavy asset of state income in the form of taxable property. They are ready and anxious to learn, have much leisure time to study and read in the winter, and will develop a line of incisive thought to the limit if the right seed ideas are dropped into their minds.

Has the state any other lines which offer so great immediate returns for educational effort expended?

North Dakota has 44,910,080 acres of land within her boundary, sufficient to supply 145 acres of arable land to every man and boy in the state from the babe to the octogenarian. It will furnish to every family of five persons over 350 acres, or a piece of land more than twice as large as the usual farm unit of a quarter section. This would seem to me to

be sufficient argument that school boys should be given an idea of the opportunities which agriculture offers in this state.

The farmers' institute is the most practical and effective line of educational extension in America. It is no longer a notion but real working force.

North Dakota, I am proud to say, has made splendid development along this line. From an effort begun by the workers of the State Experiment Station and Agricultural College sixteen years ago, it has grown until last year one hundred and six institutes were held at as many points in the state and an attendance of 46,538 people was registered. The National Association of Farmers' Institute workers has agreed that the official count of attendance on these sessions shall be made by totaling the number at each session, or half day meeting. Taking this plan of counting into consideration and making necessary allowance for it, I find that one person in thirty of the state's entire population was in attendance last season at the farmers' institutes. Those who sit in institute audiences in this state are nearly all men, as no provision for special speakers along lines in which women are particularly interested has been made as yet. This represents a vast additional field awaiting the institute manager, a feature where its influence can be made to reach another field just as important and nearly as remunerative to the commonwealth as the one to which it is now devoting its attention. It is conservatively estimated as a result of analyzing the attendance figures recorded in the institute sessions, that one-fifth of the men in the state of North Dakota sat in institute audiences last year.

The men who attend these meetings, which are held almost exclusively during the season when the work is light and time is abundant, have ample time to develop the thought suggested by the institute speaker far beyond the stage the average attendant upon a lecture subject can be expected to do. This is accounted for in part by having ample time and from the fact that he is deeply interested and working for added production with the very thing that has been under discussion during the session of the institute. He discusses it with his neighbor, he tries the new plan, his neighbor sees his operations and his results; adopts them, discusses them or denounces them according to his impression. Any and all of which are sure to be educative by bringing out additional consideration of the topics touched upon by the institute speaker. I believe I am safe in saying that half of the men interested in the agriculture of the state are reached by the institute speaker.

The farmers' institute meetings are put on according to the record of the previous session held in a town or upon several sessions, if it is a point that has been visited by the institute corps a number of times. The way the local committee managed the advertising of the meeting, the kind of hall provided, the weather, the roads, the interest shown by the audience, who spoke, the amount of discussion, the subjects treated, and the interest taken in each are a matter of record and form a good guide in deciding upon the points to visit during the following season.

The farmers' institute management have decided, however, that the farmer in the new country, the farmer who is tributary to the small town which is not favored by a railroad line and which is too modest to expect an institute session, should be reached, and in consequence the portion of the institute season, which is carried on during a time when the weather will permit of driving is devoted to these small outlying, new places, in a sort of missionary way.

The farmers' institute publish a book of information which is widely known as the Institute Annual, last year in an edition of fifteen thousand copies. This annual is well illustrated, contains 288 pages, with no advertising matter, and is sent free to those who apply for it. The institute conductor makes it a point and announces before hand through his advertising matter that a copy of the latest annual will be given to each attendant at the first session of the institute held in his town. If there are enough copies to supply those who attend for the first time at later meetings, they are cheerfully given out, but no guaranty is given to those who do not attend the first session. The farmer values the institute annual very highly in most cases, and this plan of guaranteeing a copy to those attending the first meeting and frequently running short of them at the second and later sessions, has a good effect. The institute annuals published by the North Dakota organization constitute for those who have the file complete, an excellent series of volumes on practical agricultural topics, and in passing, I would say that it is well worth while for every library association to secure them regularly as they not only represent interesting contributions on the subject, but are of such a nature that while the supply is abundant during the season when they are current, there is little opportunity to secure back numbers after the season for which they are issued is past.

The institute management select their speakers with a considerable amount of care. Good platform men must be provided. Men with farm experience are imperative, if they are residing upon and operating a farm so much the better. It is a line of work, as is also the teachers' institute, I believe, where indifferent or average speakers should not be used. In passing I will say that the conductor of farmers' institutes can almost invariably send a good sensible conservative speaker to address the pupils in public schools, during the time that an institute is held and does so if the instructor in charge so desires.

In conclusion let me say that in my opinion these two fields stand out as very open and inviting ones. The young and plastic pupil, whose ideas are being formed is reached by addressing almost half of the teachers of the state. These teachers come in contact with the other fifty per cent and convey much of the information to them. That is your audience and its possibilities for far reaching results.

The other audience contains the men who are producing the wealth of the world, whose activities and added information is capable of increasing the taxable property of the state 100 per cent during the next score of years. They are too old to go to school, have family cares that keep them at home, have ample time to read, think and debate during the long winter. Both, it seems to me, are fertile fields and well worked, but so important that extension and improvement should be our watch words relative to each.

BULLETINS AND SCHOOL PUBLICATIONS.

GUSTAV F. RÜDIGER, UNIVERSITY.

The subject of bulletins may be considered under two heads, viz.: (1) Popular bulletins and (2) scientific or technical bulletins, or scholarly publications of any other description.

POPULAR BULLETINS.

The ultimate aim of all scientific and scholarly investigations must be utility and service to mankind, or the improvement of the human race either morally, intellectually or physically. The old view that a scientist should make scientific investigations merely for the sake of knowing things is no longer tenable, because we have reached the point where the people are demanding to know what is the practical value of all investigations for the carrying on of which they are contributing. I would not have you carry away the impression that I am of the opinion that there is no longer a place in our universities and colleges for so-called pure science. On the contrary I am an ardent advocate of the pursuit of purely scientific investigations because I am convinced that progress in practical every-day affairs is always the result of advances made in the realm of pure science. What we need is not less scientific professors, sanitarians and physicians, nor less expert agriculturists, but a means of popularizing the results of their investigations and thus giving the average individual the benefit of them. Some of this work I believe can best be accomplished by means of the popular bulletin.

During the last thirty years there has accumulated a vast amount of expert knowledge concerning sanitation, but until very recently no systematic effort has been made to give this knowledge to the common people. It is absurd for a group of specially trained men to have a clear understanding of the mode of spread of certain infectious diseases and to withhold this knowledge from the public who would receive the greatest benefit from it. The science of sanitation is so young that practically none of our teachers in the smaller communities have had an opportunity to prepare themselves to teach it. It would seem therefore that much good can be done by the distribution of popular bulletins dealing with matters relating to sanitation. This fact has been generally recognized by sanitarians, and it was recommended at the International Congress on Tuberculosis last year that public health bulletins be sent to every school in the country. It was there recommended that these bulletins be sent out by a national bureau of health. This is an excellent idea but I believe that these bulletins ought to have a wider circulation than the common schools. Many people out of school would gladly receive them and would benefit by the information contained therein. The Public Health Laboratory of the University has been issuing such bulletins for the last eighteen months and we hope in this manner to bring a store of useful information to a large class of people who can not be easily reached in any other way.

Our Agricultural Colleges are maintaining experiment stations at which specially trained men are carrying on experiment in the hope of increasing the yielding capacity of our fields, and of improving the quality of our grain and the breed of our stock. Many other lines of activity directed toward the improvement of agricultural methods, are engaged in, and the results of these experiments are given to the farmers through the medium of the Farmers Bulletins. The free distribution of these bulletins in large numbers is certain to reach a class of people who could not be reached as well in any other way. The Agricultural Colleges are thus enabled to carry the results of their experiments to the very homes of those who are to be benefited by them.

Just as the agricultural colleges are sending out farmers' bulletins, so our teachers' colleges might engage in the publication of bulletins, or periodicals, for the teachers in the elementary and secondary schools. There is no doubt but that these colleges could thus exert a very wide and beneficial influence over these teachers by holding up before them the highest ideals of the teacher, and explaining and simplifying the latest and best methods. I grant that there are very good educational journals but in many instances the editor is not as familiar with the local conditions and with the needs of certain classes of teachers as are the professors of our teachers colleges of the state. Many of the teachers in the country schools get so little salary that they can hardly afford to subscribe for the journals, whereas the bulletins or publications discussed here could be sent to them free of charge, and many of them would be read.

Another field of activity for the popular bulletin is our state geological work. The formal report of the state geologist are necessarily somewhat technical in nature and can hardly be used for instructional purposes in our elementary and secondary schools. Would it therefore not be profitable for the department of geology of the university to prepare more popular bulletins on the physiography of the state, based on the reports of the state geological survey? These bulletins could be used with profit in the classes in physical geography. Special bulletins might be prepared on certain sections of the state and with their aid the pupils would gain a knowledge of the physical character of the state which is now not easily accessible.

No doubt many of my hearers can think of other lines of usefulness for popular bulletins and popular publications but I cannot dwell on this phase of the subject any longer.

SCIENTIFIC BULLETINS AND OTHER SCHOLARLY PUBLICATIONS.

There is no doubt in my mind but that that educational institution whose professors are engaged in the publication of results of original investigations has the greatest and best influence on the life of the people. It is my firm belief therefore that it is the university and college professor's highest duty to his fellow men to add a few facts to our great store of existing knowledge. I grant that his first duty is to teach to his classes the facts which have come down to him from previous generations, but this is not where his duty ends. I have stated above that the ultimate aim of all

scientific and scholarly investigations should be utility and service to mankind, or the improvement of the human race. We must not let this fact lead us astray, however, and inquire too closely into the practical value of a publication setting forth the results of an original investigation, because many great discoveries are too early for their times and cannot receive proper valuation until other discoveries have been made along different lines. Who could have guessed at the time that Galvani's discovery that muscular contractions are produced when a bi-metallic arc of iron and copper connects the lumbar nerve and the crural muscle of a freshly killed frog would lead to the invention of the electric telegraph? Or, when Roux and Yersin discovered that the filtered cultures of diphtheria bacilli are toxic for guinea pigs, who could have prophesied that this fact would soon lead to the discovery of diphtheria anti-toxin, which would in the course of a few years reduce the death rate from this disease from 35 per cent to about 7 per cent? These results cannot be foretold and hence we must not hesitate to publish the results of our original investigations because we cannot see where they will find an immediate practical application.

It is generally recognized that pure science has furnished the foundation upon which is built our modern civilization, and therefore it behooves every institution of higher learning to encourage the publication of the results of original investigations. All our ingenious inventions, all advances made in our various industries, modes of transportation and means of rapid communication, as well as advances in the healing art of the physician, are based on the advances made in the pure sciences. It must also be remembered that most of our great scientific discoveries have been made by those who are engaged in the teaching of science. There are a few notable exceptions such as Darwin, Franklin, Joule and some others, but on the whole the honor roll of science is an academic list. This is only to be expected because we all have a profound contempt for that professor who does not thoroughly understand his subject in all its phases. And this implies that most professors do know more about their specialty than anyone else and hence they are eminently fitted for going beyond the confines of existing knowledge and there to discover new truths.

I have dwelt at some length upon the necessity of encouraging original investigations because without original research there can be no such thing as the publication of truly scientific papers and bulletins. It seems to me that it makes little difference in what form we publish our scientific papers, whether in the form of University Studies, Bulletins or in Scientific Journals as long as we publish papers of real merit. Only that institution of higher learning is fulfilling its highest and noblest function whose members are engaged in original investigations, the results of which are published where, in the opinion of the author, they will have the greatest influence upon the life of the people.

EXTENSION OF THE INFLUENCE OF THE HIGHER INSTITUTIONS OF LEARNING BY CORRESPONDENCE WORK.

JOHN M. GILLETTE, PROFESSOR OF SOCIOLOGY, STATE UNIVERSITY.

THE SOCIAL BACKGROUND OF CORRESPONDENCE WORK.

The background of the growth of correspondence work is found to be the world movement toward democracy or socialization of all institutions and all satisfactions of life. Freedom of contract, on the part of labor as against the forced labor of former times, the extension of political power to the masses and the limitation of that of the classes, freeing states and nations from the incubus of state supported and enforced religion, and the growing tolerance of freedom of thought, the multiplication of the agencies of spreading culture with the extension of free and compulsory education, these are some of the items which appear as milestones in the world-movement towards the larger and more complete democracy. The extension of the range of the influence of the higher institutions of learning is, therefore, but a special phase of the working out of the democratic impulse and tendency which sets forward more strongly from year to year. Correspondence work is only one of the means which are being used to extend the valuable knowledge and the inspiration of which the institutions are depositories and conservators, and of which, also, unfortunately, they have been, too long, somewhat arrogant monopolizers.

I believe the institutions of higher learning are not altogether to be praised and glorified as the inventors of the idea that knowledge should be extended. Perhaps the expression would be more exact were it said they have not been wholly altruistic in taking up the work of extension. As one studies the times it becomes apparent that a great many agencies for the promulgation of knowledge have arisen outside the ordinary channels of education. They undoubtedly have appeared because there was a need for them. In other words the existing agencies were not doing all that should have been done toward reaching the mass of people. The new agencies appeared and made rapid gains. They at first excited the scorn and ridicule of colleges and universities. It was much like the appearance of the salvation army and the belligerent and disdainful attitude of the established agencies of religion. But in both cases the ridicule and disdain later turned to fear of competition or to admiration of the excellent work which the new agencies did. To admire, in the case of educational institutions, and to fear that the ground would be cut out from under their own feet ultimately, led to plans of imitation. When actual extension work was undertaken the surprising discovery was made that the people were actually interested in having useful information brought to their doors; and further that it was a good thing for the institutions themselves. It made them popular with the people and thus recruited the ranks of the resident students as well as loosened up the strings of the taxpayers' purses, thus appealing to their egoistic interests. But to make a long story short, extension work has been permanently adopted

by higher institutions of learning as a legitimate agency for carrying on the work which has been delegated to them by their supporters, again demonstrating the truth of the ancient saying, "All things work together for good to them that love the Lord."

There are two or three things implicit in this movement for extending the work of education by lectures and correspondence courses. First, knowledge is essential for the safety of free government, for its continuance and development; and for the promotion of social satisfaction and progress. It must, therefore, be made a part of the equipment of every citizen.

Second, every citizen has a right to participate in the enjoyment and use of what society has worked out hitherto. He is the heir of all the past and no laws of primogeniture or of special monopoly rights can be allowed. His career is dependent on his intelligent equipment. His further development is conditioned by his being able to build himself up day by day and year by year. Thus he wants the scientific knowledge and the inspiration which society has stored up in itself made available for him.

Third, society is dependent on the discovery of its talented individuals for its continued and steady progress. Any means which will aid this discovery is a legitimate and worthy one. The lower reaches of education are not competent to carry out the development of talents far enough to make them generally evident. Not all the supposedly talented are able to go to college, are discovered and forced to go, or are even encouraged to attend. It is the duty of higher institutions of learning to help unearth this potential genius and to equip it to make its valuable contribution to the cause of progress.

Fourth, the higher institutions are custodians of the valuable knowledge the experience of man has worked out. They are also homes of specialists in various phases of this information who either are adding to it or are, by their training, rendered competent judges of its worth and competent teachers in its promotion. This fact brings a specially imperative responsibility of using and distributing the precious stuff as widely as possible. I do not question but that these schools are to be held as missionaries in the cause of the spread of truth and that they are to be condemned if they shirk or lie back stupidly inactive.

Fifth, in the development of the masses, lies the most hopeful line of educational work. Wealth increases in a given society in the ratio of the intensity of the education of its people. Such was found to be the case by the investigation of the industrial commission in comparing southern and northern states. A prominent educator says: "When it comes to the question of producing the maximum useful effects with the means at command, greater results can certainly be secured by educating the masses than in educating the small number."

RESULTS OF CORRESPONDENCE WORK.

Extension work has been carried on by higher institutions of learning for nearly fifty years. Correspondence work is much younger. Experiments during the last quarter of a century have been conducted in America

relative to this kind of education. The volume of the undertaking has steadily enlarged. Now we find such institutions as Wisconsin University, Indiana University and the University of Chicago, which have tried out the work and found it satisfactory. We at the University of North Dakota contemplate such an undertaking as soon as the means will permit it. Agricultural colleges are quite generally committed to the plan of education. Our own state college has such a department at work. Great schools of correspondence have grown up in our more eastern cities, great in the number of students they enroll as well as in the actual results they secure. The Scranton school, a few years ago, reported over 250,000 students who were taking its courses. Many other large institutions which are successful in a large way exist. The conclusion forces itself on us in the face of these facts that correspondence work has become a permanent feature of our educational system, and that the people of the United States are finding compensating benefits from the investment of their money in the courses of the regular correspondence schools which operate on such a large scale or they would cease their patronage.

We may take it for granted that the results from this kind of work on the part of the universities and colleges are good, for the movement is extending and promises to become universal. But perhaps some testimony from those engaged in the work may be in place. I quote from the late president of the University of Chicago, Dr. Wm. R. Harper, in an address upon correspondence work.

"It is an interesting fact that in some departments of the university, more students have come to the graduate schools from the correspondence-study department than from the undergraduate students. This is true in the case of botany. This department reports that not only more students come from the correspondence-study work than from the undergraduate students, but also that they were on the average better prepared. The feeling of many members of the faculty regarding the adequacy and value of the work has thus been expressed by Professor Coulter, the head of the department of botany, who made the statement I have just quoted.

"But for the lack of time I should like to present my own experience in teaching by correspondence. For a quarter of a century I have had under my direction instruction in Hebrew and other ancient languages by this method. Experience shows that the work can be done. One need only examine the facts to convince himself that very great advantages attend work of this kind. The student who does work by correspondence takes his own time in which to finish a given task, and he recites the entire lesson himself. He is not limited to one or two minutes in an hour ordinarily granted in regular recitation work. Furthermore, his recitation is not an off-hand statement of what he can recall; it is a written statement of that which he has worked out. The thoroughness of the work is beyond question. On the other hand, there is lacking the inspiration of the teacher's presence, and consequently many who undertake correspondence work fall out before the work is finished. The correspondence methods avoid all waste of time, because the work is as definitely

outlined as the work done in the class room. It is definite and exact. The knowledge acquired is accurate. There is no better method for securing accuracy than the method of writing. The work likewise cultivates independence and self-reliance. The instructor assists the correspondence students in reference to the questions which they cannot solve." "It is a statute of the university that one-third of the work done for a degree may be done in this way. So satisfactory has this work been that serious consideration is being given to the question whether the proportion of the work done in this form toward a degree may not be increased to one-half of the entire work required."

Several other testimonials to the efficacy of the work of the correspondence department of the University of Chicago from professors and instructors in that institution who are actively engaged in conducting study by correspondence could be given. Some in the beginning were avowedly hostile to that form of education but became enthusiastic converts to its advantages. The correspondence work in that school covers about all or practically all lines of study and work which the university offers. I have been much interested to note that even laboratory work is conducted by correspondence. Professor Charles J. Chamberlain was the first to give laboratory courses. At the time he wrote his account of the work he was offering three courses in botany in general morphology. A want of ample time prevents the description of his courses and the methods he pursues.

OBJECTIONS TO CORRESPONDENCE WORK.

Objections to correspondence work are sure to rise. This is especially true in certain quarters where the old traditional view is held which makes education a matter of respectability, and in certain quarters where the professor is apotheosized and viewed as a sort of necessary sacred intermediary between the ignorant and stupid student and the truth. And it is really astonishing how many quarters of these sorts there are in existence at the present time. A common objection is the one cited above by President Harper, namely, that the student is absent from the professor and is deprived of his stimulus. To quote Thomas C. Martin (writing in the *Independent* of August 7, 1902), in answer to this objection: "But the student is, after all, conscious of a presence and of a watchful mind presiding over his efforts from a distance, and this might be urged as true also of some work done in the colleges. Indeed, it has been said by an educational journal that 'the composition courses at Harvard are practically correspondence courses. The student writes a theme and drops it in a box. Presently it comes back for rewriting, covered with suggestions in red ink. The student might just as well be in Cuba or California as in Cambridge.'"

Another objection is made that the student is deprived of the stimulus which comes from the presence of others in the classes. This is doubtless true. It is a great difficulty to many students, and along with the lack of the presence of the instructor as a spur, operates to eliminate many students from correspondence courses. Only those of a somewhat deter-

mined and independent spirit carry out successfully such work. This lack of stimulus is particularly felt in the case of students in the lower grade work. It is probably close to the truth to state that the large number of students beginning the work of the correspondence schools which operate on a commercial basis soon fall by the wayside. It is a part of the business of the agent of these schools to get around and coach those who are falling behind. This is done to a great extent because continued royalty on the tuition fees depends on the persistent work of the students. In such cases much of the wanting stimulus of instructor is furnished.

In the case of college correspondence work this lack of stimulus is less felt but is still an element, particularly in the earlier years of college course. Probably this constitutes a sufficient reason why institutions should not undertake to carry on correspondence courses below the college grade, unless they are able to put men into the field whose duty it would be to visit the students of their school and give them personal help.

The objection is sometimes heard that state institutions have no right to divert the money of the tax-payers to carry on educational work outside the limits of the building and campus. But these same individuals object to taxing the citizens of the state to carry on education above the high school grade. And if we go back fifty years in history we read that the leading citizens of New York City denounced as paternalism the urgent claim of the laborers of that city to the right of having their children educated at public expense. I would not even grant the abstract truth of the objection. And for all practical purposes the historic evolution of society is directly away from the position of the objection. Save on the eastern coast of our nation, where aristocratic notions of education and of the functions of the state still more or less prevail, we hear little of this line of objection. I have attempted to show in the earlier part of this paper that the sanctions of democracy urge the extension of knowledge to the masses of people and that, because of the peculiar position they are in relative to society, the higher institutions of learning are under a heavy obligation to take part in this extension.

MEANS OF EXTENDING THE INFLUENCE OF THE HIGHER EDUCATIONAL INSTITUTIONS INTO LIFE FOR THE IMPROVEMENT OF CITIZENSHIP.

PRESIDENT CHAS. C. CREEGAN, FARGO COLLEGE.

Within the past twenty years there has been a great civic awakening in this country, and as one of its results the study of civics is now a requirement in the common school curriculum of many of the states. The wisdom and necessity of such requirement is evident, when we recall what the public schools are for—to make good citizens. In so far as public education at the expense of the people fails to build well the citizenship of the state and nation it so far fails to justify itself.

It is, therefore, most fitting, that in the public schools there should be specific teaching and studying of civics—the science and art of citizenship.

But I am not to speak of the common schools—the “people’s college”—but upon the topic: “Means of Extending the Influence of the Higher Educational Institutions Into Life, for the Improvement of of Citizenship.”

Definitions:

(1) For the purposes of this paper when I speak of Higher Educational Institutions I mean all Normal Schools, Colleges, Universities and Professional schools—in fact everything above the academy and high school.

(2) When I use the word college it must be understood as standing for all the higher educational institutions. When I speak of citizenship, I do not mean that fraction of our population who exercise the right of suffrage but the body politic—the entire population.

What is the province of the higher educational institutions? Is it their sole purpose to produce scholars? Are they set in their places for the one great object of training up a class of men and women—perhaps one in a thousand of our people—who standing aloof from their fellows are known as college-bred or the cultured class? If this is the object of our colleges and universities and this fact becomes known among the people, it will not be long until the legislature will refuse to vote funds for such institutions and philanthropists will turn their millions into other channels.

Let me quote President Thwing upon this subject: “Let the college be splendid and magnificent in equipment and its laboratories commensurate with all the life of nature; let its libraries be the accumulation of the wisdom of man, but let the college be vital itself in teacher and student. Let the college also have a vitality as broad as is human life itself. Let it reach the American people as a people.

Discard Greek, if you will, but reach the people; retain Greek, but reach the people; keep the required system, but reach the people; bring in German methods, but reach the people: discard German methods but reach the people. Let not the American college be obliged to offer excuses for its mere being because in its remoteness from the people it is so useless;

let, rather, every American home be obliged to offer excuses for not sending its sons and daughters to the college, because the college in its abounding usefulness is so near to the home."

But the question is asked: Are not our citizens the most industrious, the most frugal, the most intelligent, the most moral, the most religious in all the world? A man can love America—his native land or the land of his adoption—more than any other country in the world, and at the same time see points where we fall short of other lands. When one reads of the growth of our great cities, like New York, Chicago, San Francisco, of the vice unspeakable walking, without blushing, the streets; when one learns of the protection of crime by officials who are sworn to enforce law, does not one reach the conclusion that there is plenty of room for improvement of citizenship—at least in the great centers of population.

When one reads of lynchings in certain parts of our country—more frequently of the innocent than the guilty—and no one every punished for the crime, one cannot but ask is there not room for training in good citizenship? When one hears of "Night Riders," a terror to the community, a disgrace to a commonwealth, when one learns of family feuds, in certain sections of our land, resulting in the killing of a score of persons and outdoing the clan feuds of Scotland a few centuries ago, one cannot but ask, where is the room for boasting? When one visits the coal breakers of eastern Pennsylvania, and finds there hard at work for twelve and fourteen hours each day the frail boy of ten and twelve deprived of school privileges and made a physical and mental wreck to satisfy man's greed; or if one looks into the Georgia cotton factory and sees the pinched face and bent form of the young girl dwarfed in body and mind; or if one can stand the sight of a glance into the crowded sweat shop of New York, where men and women shorten life by one-half in order that the manufacturer may live in a palace—can one after sights like these, and their number can be increased a hundredfold, reach any other conclusion than that there are wrongs that must be corrected before this country is safe.

Did you ever stand at Castle Garden and see the immigrants from every nation under the sun, and thousands in a single day, a million in a year, placing their feet for the first time upon American soil and not ask again and again where did they all come from, what kind of people are they socially, pure or impure. What are their political views, how many of them are American in spirit before they land and how many, like the Irishman, are "agin the government.;" What are they morally and religiously—how many of them have the Bible and the Sabbath, and how many have brought with them the "Continental Sabbath." How many of them bring the teachings of some other sage rather than the message of Jesus—how many bring the heathen temple rather than the Christian church?

It is enough to startle the thoughtful man when he thinks of such a country in such an age, with such mighty forces at work, governed by the people, many of whom cannot grasp its tremendous problems, but who are, alas, too often the barter of the political demagogue with his yellow newspaper.

College men must go out into the world to leaven its passions with the leaven of a thinking that is as wide in its generalization as it is strong and clear in its processes.

Our peril is often found in men who seem to take delight in lighting the match and fanning the flame of a smouldering discontent and prejudice.

The eighteenth century, it has been said, was a theological age, the nineteenth was a scientific one, and all thoughtful people know that the present century is to be a sociological age. Great wisdom and thorough training is needed for the leaders who are to transform communities and produce righteous commonwealths. Where but to our higher institutions of learning shall we go for trained leaders?

But one asks: Are not all of our college and university men thoroughly awake touching questions of patriotism and good citizenship—are they not, by teaching and life and activity in the community, regarded as leaders in all that makes for purity and temperance and good government?

If all our professors in North Dakota are models touching the points just named then this state has something more to boast of than her wheat fields—the richest in the world—and her per capita wealth, the greatest in the United States. If such is true of this state why spend time in the discussion of a topic which has no practical bearing upon the needs of the people? Whatever may be true of our own great state, of which we are justly proud, there can be no doubt but that college and university men in many cases are failing to do their full duty as citizens—not to speak of inspiring those under them to become leaders in civic movements.

One of the leading clergymen in an eastern city, an author of distinction, and a noted social reformer, told me of a movement in the university city where he lived having for its object the closing of saloons and other disreputable places that they might no longer ruin scores if not hundreds of the students from all parts of the land who came to that famous seat of learning. Imagine my astonishment when he informed me that there were just three professors, all of them young men and unknown to fame, out of a faculty of three hundred, who could be persuaded to take any active part in a campaign for purity and good government. That great university might be engulfed by an earthquake or swept into the sea by a tidal wave and the city in its social and political life would move on just the same.

Much of the teaching bearing directly, or indirectly, upon this subject, even from men of great learning and wide reputation, is of little value because it lacks the essential element of life. These men know books but hiding themselves away from their fellows they do not know the burdens and sorrows of the men about them.

Let me quote a paragraph from the late Carroll D. Wright, himself a college president: "I think the department of political economy as usually conducted in colleges and universities, rather antagonizes the public at large, and this has done something toward creating a more or less strained feeling between colleges and the workingmen in particular. They find (the workingmen) that political economy is not adequate to the solution of the

questions which they raise. I would not in any way abridge the academic work of the colleges, but I would extend the elective studies and bring the college into more intimate relations *with the people themselves.*"

The day will come—it has come in some of our universities—when no man will be placed in the chair of political economy who does not know the people, much as the great Lincoln knew them. The day will come when no professor of political science will be dismissed who conscientiously and in the fear of God teaches economic doctrines of fair play and righteousness applicable alike to rich and poor, to the wise and the unwise.

Listen to these burning words from Dr. Newell Dwight Hillis: "But what if wealth accumulate and men decay? What if the merchant has bought the wages of silver in exchange for the souls of men? What if rich purple are worn, but stained red with the blood of women's fingers? What makes a rich nation? The number of men the nation has, who are noble, wise, pure, self-sacrificing. History teaches that mental power and moral principle must journey forward side by side. Unfortunately our generation seems to know the right, but to be losing the power of doing it. Among certain classes moral illiteracy prevails. The school has lent the intellect wings but the conscience crawls. The reason moves swiftly along the highway with the speed of a palace-car; the virtues follow slowly, as if moving in an ox-cart. A generation may be wise toward books but illiterate towards morals."

If we do not see a return to political power of men like Aaron Burr—brilliant in intellect, but impure in life and disloyal to country—it will be because our schools and colleges teach the youth of our land that the greatness of an individual and nation is threatened when the intellect is ahead of the conscience, and culture is ranked above morality.

But how are the higher educational institutions to extend the teaching of good citizenship? My answer is:

(1) By training up men and women who will be competent leaders of the great social and civic movements of the century. A college in Ohio prior to the civil war believed that slavery was wrong. Professors and students preached this doctrine during vacations in churches and school-houses throughout Ohio and the regions beyond. When the war broke out class rooms were emptied and nearly every young man able to bear arms went to the front. Here was a college losing its life for a great cause. But when one recalls the noble part played by Oberlin in putting an end to human slavery one will not feel that the price paid was too great. When one sees on that college campus today 2,000 pupils from all parts of the world—and not a dollar of aid from the state or national government, one must feel that it is worth while to loose life for a great cause.

Prof. Jenks says: "If our teachers will but keep always in mind the thought of social happiness and welfare and the needs of humanity, there will after all be very little trouble about finding means and methods by which we can teach good citizenship."

A recent writer has said: "Patriotism means real genuine devotion to our country's good. It may be well to feel that our country is the greatest in the world, that it soon will be the most populous, that it is the home of free and liberal institutions; but if we stop here we have done nothing, or almost nothing, to prevent the decay and ruin of these institutions. True patriots wish their country to be permanent, wish that coming centuries may look back on a prosperous, continuous history; but neither wide reaches of territory, millions of population, nor a republican form of government, can make a nation permanent, and its name illustrious."

In our day do we not too often measure men's success by their wealth? "Getting on in the world" is our constant aim as well as the aim of the large majority of those about us. If we continue to give our time and strength to material things, to "getting on," who will fight the constant battle for truth and righteousness which is essential to the life of a nation? Socrates never "got on in the world," but he lives today more truly than all the millionaires of his age put together. From this standpoint Christ's life was a complete failure. He made no money; he never "got on" as men say; but today his power is felt in all the world and is increasing all the time by leaps and bounds.

Touching the university curriculum, Prof. Jenks says: "The prime essentials in training for citizenship, lofty ideals, independence and impartiality of judgment, regard for the rights of others, are to be taught always, in every class, in all grades, and the methods are substantially the same from kindergarten to university. As children ought to live in an atmosphere of good English, good temper, good morals, so ought they to live in an atmosphere of tolerance, independence, impartiality of judgment, regard for the rights of others, thoughtfulness regarding one's own duties, and *the teacher must create this atmosphere.*"

(2) College men can do much to promote good citizenship by example and often by leadership in the community where the college is located. I have only time for two or three suggestions as to the ways in which college professors, often aided by their pupils, may teach good citizenship in the college town outside of the class room. They can aid in the enforcement of law, especially those laws pertaining to the closing of saloons and other disreputable places. They can stand with other good citizens in efforts to secure an abundant supply of pure water, perfect sanitation, public parks, and play grounds, public baths, public libraries, clean streets, good sidewalks, well lighted and thoroughly ventilated school houses.

They can aid in securing pure government in the municipality, in the state and in the nation. Then can do much to aid in the war against typhoid, diphtheria and other preventable diseases. They can teach the people how to secure greater comfort and develop the esthetic taste by constructing better roads, by planting shade trees along the highways, by giving more attention to architecture in the building of houses and barns. They can teach kindness to animals, consideration for the poor and the weak, sympathy for the sick and those who are in distress of any kind.

They can do much to support those who are trying to preserve our natural resources such as timber, coal and water power. In a word, any-

thing that makes for the betterment of the community and nation should be regarded as worthy of the serious consideration of those who are placed as the teachers of the rising generation, especially in our higher schools where the future leaders are to be produced.

(3) If we turn to the work of university extension in efforts to make good citizens it is gratifying to note what is already being done in our new commonwealth in this direction, especially by the University and the Agricultural College. I have been reading a leaflet which gives the course of lectures offered by the University for a nominal sum to any community desiring them. Nearly all of these lectures, if delivered in a given town or rural district, will surely have a tendency to raise the standard of citizenship. The fame of some of the professors in the Agricultural College and the noble work they have done to aid the farmers and make him a happy, intelligent and prosperous citizen, has reached all parts of our land. We indulge the hope that this line of effort will grow and prosper and that all the higher institutions of learning in the state—each in its own way—will do a similar work, until every community feels the influence of this effort among our scholars and teachers to produce a better citizenship. We do not have in North Dakota the problem of the great cities or the negro problem, or the "yellow peril," but we do have the problem of the country town, the problem of the immigrant, and many other problems peculiar to an agricultural state.

Let us in closing listen to the words of Emerson, "The true test of civilization is, not the census, nor the size of the cities, nor the crops—no, but the kind of men the country turns out."

THE MEANS OF EXTENDING THE INFLUENCE OF THE HIGHER EDUCATIONAL INSTITUTIONS FOR THE IMPROVEMENT OF THE RURAL SCHOOL.

PROFESSOR JOSEPH KENNEDY, UNIVERSITY.

Ladies and Gentlemen: It is a well-known fact that the universities of Europe and the higher educational institutions of America were established and organized and that they were well developed long before the lower schools were organized and systematized. Historically, educational influence has moved from above downwards. What are known as the great "public schools" of England, such as Eton and Rugby, and the fitting schools of our own country, such as Phillips Exeter and Andover were created by the influence and the requirements of the colleges and universities above them. Even in states where education has been and is provided by public taxation the state universities were established and developed in advance of the lower schools both in time and in extent. It has been a process of "University extension" downwards. This seems proper and natural. It was to be expected that those in high educational places should assume leadership in setting ideals and in suggesting ways and means of organizing the lower schools. In fact the higher educational institutions became naturally and properly the models which were copied or imitated in the lower school.

It may be that the lower, or preparatory schools copied or were compelled to copy too closely in many things. The fitting schools were only the higher schools in miniature; just as in those days before the development of modern psychology and pedagogy, boys were merely little men, differing from men only in size. Consequently the influence of the higher educational institutions upon the schools immediately below was, in those days, very largely from selfish motives. The influence went to make the lower schools what they were in fact as well as in name, "fitting schools;" the whole aim of the higher institution was to make the lower a "preparatory" school. It was a means toward the higher institution as an end.

I do not state these historical facts in any spirit of criticism on the schools, higher or lower, of those days. I merely state them to give the reason, as I infer it, in the minds of your committee for having a paper and discussion upon the influence of higher institutions, not upon "preparatory" schools nor even upon secondary schools in general, but upon rural schools and rural life. If, however, the higher institutions of learning should in our day of social service, democratic ideals and general education, restrict their influence to the schools immediately below them and for their own ends and for the purposes merely of the learned professions, they would lay themselves open and justly, to the criticism and condemnation of society.

It is no doubt true that scholarship—I will not say education—like wealth tends to become aristocratic, and for it eternal vigilance is the price of a truly democratic spirit. Under the merely intellectual and so-

called cultural ideal it is pleasant to live and work among a few choice and chosen spirits in a congenial seclusion. Scholarly institutions in the past seem to have had this aristocratic characteristic of scholarly men; they have lived too much apart from the busy and troubled world. Else how are we to account for the fact that in the older states there has not been in two centuries a great movement on the part of the higher institutions and their innumerable alumni and friends, looking to the systematic organization of all lower education on the basis of public support and public control. And so, while historically education has spread from above down it did so only to a certain extent and for a certain purpose; the law of aristocratic conservatism seems then to have stepped in and neutralized the law of the downward and outward influence. Even the older state universities after having shed their influence downward and bringing about the establishment of systems of secondary schools, were overtaken by the aristocratic tendency and their direct influence ceased at that level.

But at present a great change is coming over society and over its institutions. In the olden time and well up to our own, only the few were educated while the masses were neglected. The shadow of the ancient world, when only the few, the free men, received an education and the remainder were slaves left in ignorance, has been projected down to recent times. A "liberal" education was that given to free men. But society and its institutions have been *democratized* educationally as well as socially, and politically.

The *ideal* of education, even, has changed. For centuries it remained dominantly and, rather exclusively, intellectual. The mere scholar, no matter what else he was or was not, was the ideal. In our day the accent or emphasis is shifting from mere knowing to intelligent doing. Knowing is still as highly prized but wedded to it must be the power to do. Intelligent civic righteousness seems now to be the goal. Knowledge is regarded as a means toward service in behalf of others as an end.

This being the case, the higher institutions of the land, no longer content with cultivating schools of secondary grade and for their own exploitation, are turning altruistically, under the ideal of service, to new and broader fields of usefulness.

And where is the most backward and most neglected field and hence the one offering the greaterst opportunity for service?

Within the last fifty years—I might almost say, within the last twenty-five—all kinds of schools except one have made marvellous strides. They have passed from chaos to cosmos, for the condition of small, narrow institutions to that of large cosmopolitan ones. Secondary education within that period has been organized in every state, and there is no city and scarcely a small town in the country that does not afford its youth an excellent opportunity to receive a high school education. For the urban populations these high schools are truly the people's colleges. These schools have fine buildings, excellent equipments, varied curricula and a force of scholarly and professional teachers.

The normal schools, which fifty years ago were considered an experiment, have developed to such an extent that they have well-nigh realized their ideal.

Agricultural colleges have been established and are now not only highly and efficiently organized institutions, but they are successfully organizing, throughout their territory, agriculture and all its allied activities, and arousing an interest and an enthusiasm in our greatest and most fundamental industry, that was undreamed of by those engaged in it fifty years ago.

The great universities of the country, too, both endowed and tax-supported, have developed so rapidly in numbers, in buildings and equipment, and in the richness and variety of their courses, that it has been difficult for the authorities to keep pace in the process of organization.

All these phenomena show that educational institutions are being democratized and that the ideal of service to the people is dominant.

But there is one kind of education and one kind of school which has not grown in efficiency in half a century. This is the rural school. It has the same little box schoolhouse, in most cases unevenly heated and without ventilation; often with only a few children in attendance and an immature young girl with only an elementary education, behind the desk, and (in our own state) with only six and a half months of school, on the average, in a year: and the rural schools are as good in North Dakota as in Minnesota, Iowa, Wisconsin, Michigan, New York or New England. When the child completes the elementary course of study, if perchance he ever does under the adverse circumstances and conditions, he has no high school to attend unless he leave his native habitat and become a city child. This is one of the problems of the rural school and of rural life.

Here is a field worthy of and demanding the co-operation, intellectual, social and political, of the higher institutions. I now use the term "higher institutions" to denote all those above the rural school; those which have themselves been helped along the path of rapid progress so generously by the rural population and the rural influence. It is high time that all interest should unite to grapple with the rural school problem which is at the heart of the problem of rural life itself.

But what can the higher institutions do in the situation? They can turn their attention upon the problem and use their influence toward its solution, until the rural schools are moving on the road to success. They have not, as I said, been moving at all; or if so, the rate is so slow that it is a debatable question. There is evidently a rural school problem which ought to be solved. Investigation and discussion will throw light upon it and around it; and the higher institutions are naturally looked to for light and leading, and we can not reply in this age of service, "Am I my brother's keeper?"

The higher institutions can, of course, offer to the rural schools, able and broad-minded, sympathetic and well-trained teachers, but the salaries—more properly the *wages*—are insufficient to secure or retain them and the influence ceases. The higher institutions can send out their lecturers on school problems or educational questions, but, there being no way of

bringing about the realization of the good plans and theories set forth, the influence usually ends with the lecture, which is, consequently, like the firing of a blank cartridge into the air.

It seems to me that the higher institutions should exert an influence in a more direct and practical way upon this great problem of rural life. These fine theories and ideals are good, but the factor of service in a more practical way should be united with them.

The higher institutions should agree as far as possible upon the methods of improving the rural schools and then should marshal all their forces and use all their influences to bring about legislation which would realize in practice the desired improvements.

The rural school problem has not, up to date, been tackled in real earnest. We have treated the rural school problem much as we have treated the problem of taxation, in a kind of *laissez faire* manner, while the problems in the other fields of education have been quite successfully solved.

While I do not think that legislation can do everything I do think that it can work wonders in many fields and especially in the field of education. It is legislation that elicited the extraordinary development of high schools, normal schools, agricultural colleges and state universities.

The higher institution should now (to use a popular phrase) "get into the game" and help solve the rural school problem. If they are in earnest in the matter they can, with the co-operation of the interests representing country life, bring about a successful solution of the problem. Little objections and difficulties brought forward are only an indication that there is still lacking the real *will*, with which there is always a way, and without which there is no possible way.

Within recent years the socialization and the democratization of the University of Wisconsin, and its work in the direction of social service is one of the best illustrations of what is taking place in higher institutions, and of their ability to *do* things if there is a real *will* and a strong motive to be of service to the great public. But even the great influence of the University of Wisconsin has not yet been exerted effectually in the sphere of the rural school. Here is still the place of need and of opportunity in all the states. And for us this duty, like that of charity, lies at home, in our own commonwealth.

The first thing I would specify as a need of the rural schools is organization, equipment and supervision. The ideas of consolidation, building and equipment, and supervision all go together to make a good school. They mean organization, centralization and efficiency. They mean an opportunity for rural children to receive a high school education. At present there is no rural high school between the present rural school and the higher institutions. There is a break there, a chasm, which rural children can not cross. The few who come to higher institutions must go around, by way of some city high school.

Another need is some help from the state for rural schools. I do not mean that the state should support the rural schools as it supports the higher institutions, but that it should give *some* help and, what is better, some incentive or stimulus, as it now does in the case of high schools.

Just how this idea should be embodied in law is a matter of detail. It usually happens that a small amount given as an incentive by a state does wonders. Indeed I am inclined to think that the state as a whole should maintain models in various places of what it wishes done. All people are imitative; and if the state would establish and maintain, in conjunction with a favorable and favoring community, a model rural school with high school opportunities, this example would work, like a leaven, in the surrounding country.

Another thing that must be done if the rural school problem is to be solved, is to raise the standard for teaching. At present there is not even the semblance of a profession in rural school teaching. A higher standard would raise wages and this would attract to the calling people of stronger personality, more thorough education and better professional preparation. The standard, the salary and the teacher are three factors that are inseparable; they all advance or recede together. And here as elsewhere it should be recognized that something worth while can not be secured for nothing. In fact the salary of rural school teachers will have to be higher than that of teachers in cities in order to compete with the stronger social attractions of the latter. If double the present salary were paid to rural teachers, the standard raised to at least a high school education and better, a rural high school education, with professional preparation, the rural schools somewhat consolidated, developed and supervised, and nine months of school given as in cities, there would be a genuine *Renaissance* in rural school education and in rural life itself. Society has been merely playing with this problem as a cat plays with a mouse. But while this solution will mean money, I am convinced that if we had the educational statesmen willing to cross the Rubicon on this question, the people would gladly pay the additional cost when they should see and experience the vast and striking change. At present the money is spent, and with little result; then the additional increment, as usual, would be the cause of the change from monotonous mediocrity to educational excellence.

The influence of the higher institutions in this state, if they would take "a long pull, a strong pull and a pull all together," could, I believe, solve the rural school problem and put North Dakota ahead of any state in this Union. The rural section of this state have, as I said, generously aided all the higher institutions along the road to success, and now one good turn surely deserves another.

What I say may end with the saying, as too many of our talking conventions end in talk, but I am convinced that the remedies suggested are eternal verities in that situation, and that they must be faced and grappled if the rural school problem is to be solved in America. I would suggest that this section of Higher and Professional Education, as individuals and as a body, attempt the solution of the rural school problem in North Dakota. *Problem*, you know, is from the Greek word *problem*, and means to cast or throw. The rural school problem is cast at us, if we are our brother's keeper; and we shall catch it or fumble it. Let us help the rural population and our legislature to catch it. The conditions of rural life

and rural schools are not the most favorable for organization. But organization is an essential of success in this age, and the help of all the higher educational institutions is needed in the solution of the rural school problem.

DEPARTMENT OF
SECONDARY EDUCATION

MINUTES OF DEPARTMENT OF SECONDARY EDUCATION.

FIRST SESSION, DECEMBER 29.

The president, Supt. E. R. Edwards of Minto, called the meeting to order at 9:15 a. m.

Supt. A. G. Crane of Jamestown, the secretary, being absent, Supt. F. Thordarson of Mayville was elected secretary for the session.

Pres. E. R. Edwards was elected to serve on the nominating committee of the general association.

Owing to an error in the printed program, only a few were present, so the meeting adjourned until 9 a. m. the following day.

F. THORDARSON,
Secretary.

SECOND SESSION, DECEMBER 30.

President E. R. Edwards called the meeting to order at 9:15 a. m., and then delivered an able address on "Problems Confronting Our High Schools."

The following papers were read:

"Is the Child the Ward of the Nation?"—Supt. H. A. Tewell of Cando.

"The Value of Elementary and Secondary Education Compared with Present Cost."—Supt. Nelson J. Sauvain, of Casselton.

"What We Have Been Doing at Mandan."—Supt. P. T. McNally, of Mandan.

"The High School and Physical Education."—Supt. H. L. Rockwood, of Enderlin.

The discussion being deferred, business was in order. The minutes of the previous annual meeting were read and approved. The election of officers resulted as follows:

For President—Supt. S. H. Wolfe, of Minot.

For Vice President—Supt. H. A. Tewell, of Cando.

For Secretary—Supt. F. Thordarson, of Mayville.

President-elect Wolfe was elected a member of the executive committee of the N. D. E. A..

Supt. W. E. Hoover of Fargo announced a meeting of city superintendents to discuss problems of supervision.

A motion to adjourn was carried.

F. THORDARSON,
Secretary.

THIRD SESSION, DECEMBER 31.

The program opened with a paper on "Are the Schools of North Dakota Meeting the Needs of the Young People?" by Supt. P. A. McMillan, of Carrington.

Five more papers followed:

"The Province of the High School as a Preparer for Life."—Supt. L. P. Linn of Kenmare.

"The Tobacco Habit Among Pupils."—Supt. F. Thordarson, Mayville.

"The Relative Values of High School Subjects."—Supt. P. S. Berg, of Dickinson.

"The Social Side of the High School."—Miss Dorothy Poppy of Minot.

"How Shall We Judge Text Books in History?"—Mr. H. A. Curran, of Valley City.

The following motion was unanimously carried: "Moved that the High School Section express their hearty appreciation of the royal good time and generous courtesy accorded them by the citizens of Minot and especially express their appreciation of the kindness of the local committee, Mr. A. W. Tracy, Supt. S. Henry Wolfe, and Supt. E. G. Warren."

The meeting adjourned at 11 a. m. to hear Dr. Forbush of Michigan.

F. THORDARSON,
Secretary.

SOME CURRENT PROBLEMS OF SECONDARY EDUCATION.

SUPT. E. R. EDWARDS, MINTO.

During the past year nearly every periodical in this country has indulged in the edifying pastime of telling what is wrong with our public schools. The opinion that there are many things wrong with our public schools, and especially with our secondary schools, seems to be definitely fixed in a large portion of the public mind. While but few of these criticisms have any foundation in fact; while our public schools are better to-day than ever before; while our teachers today are better prepared; while both teachers and pupils work under better conditions and our public schools are in every way coming nearer and nearer each succeeding year to being the best all around institutions in the United States; and in the face of the fact that high school attendance has enormously increased in nearly every state in the Union in the past few years; yet the public seems to entertain a vague distrust of schools in general and to hold a firm conviction that our system of public secondary schools has failed to make good. This notion, unless dispelled, is almost certain to be reflected in greater suspicion of expenditures for high school and in decreased appropriations for such work. This would indeed be a great mistake and a sad misfortune. Increased high school attendance and our new practical courses in manual training, domestic science, scientific agriculture, etc., demand an increase in expenditure. The public is demanding schools that better meet the needs of our day and generation. Our schools are fast becoming the very best for our youth and conditions. The best things are always expensive; consequently, the best in education will cost money. We are asked by our critics to do two things, viz: To make our schools more efficient and our courses more varied, and at the same time to be more economical. The situation was well stated by an eminent educator of a neighboring state when he said: "As long as the United States spends but \$340,000,000 for all school purposes and a billion to a billion and a half for liquor, not to mention the great loss to the community in pauperism, vagrancy, disease and crime directly traceable to drink, and as long as the barkeepers are better paid than school teachers, as long as we smoke and chew \$2,925,000,000 worth of tobacco each year, while only \$200,000,000 is the complete pay roll of the teachers, as long as congress appropriates at each session enough money for wars past and wars to come, to reconstruct every public school and university building in the whole United States, we can hardly hope to be called largely economical because in a spasm of retrenchment we withhold fifty millions from our schools." The futility of any attempt to refute current criticisms of high schools before an assembly like this is fully realized. Our critics are not here. However, this matter forms no less a serious problem for educators today.

The public is demanding much of us and our schools; far too much to insure a good quality of work from both pupil and teacher. Teachers are too ready to put their ears to the ground in order to detect the first

note of criticism; too ready to anticipate some new demand. I believe we are at times too ready to discard the old and tried and to undertake something new and of doubtful value in response to so-called popular demand. That a good deal of the old in secondary education deserves to be discarded cannot be doubted, but the present need is for greater conservatism.

We are, undoubtedly, at a point where our school system must be subjected to an extensive and intensive re-examination. The movement seems to be spontaneous as witnessed by the appointment of so many commissions in so many states during the past two years. These commissions are studying every phase of school work. We seem to be well entered upon an epoch of readjustment, especially in our secondary education. There has been no very comprehensive adjustment of educational matters since about 1870, and hence, we must expect to live in a condition of unrest until we approximate, at least, some standardization of our high school system.

Some ten years ago, under the sting of criticism from the college and the business world, high school teachers adopted the slogan, "Enrich the Course of Study." Every high school subject was revised upward in an effort to please the powers above. This movement went on until in sheer despair the high schools cried for relief and longed for an "Educational Hercules" to remove the accumulated rubbish. The reaction soon started and the pendulum of public school sentiment has been steadily swinging the other way, pushed on by many willing hands. The present danger is that we will push it too far, forgetting again the old natural law of reaction and that when the pendulum starts on its backward swing many good people and many good things in our present system may be overthrown. Believing this, I think there is no more serious problem confronting high school teachers today than the adoption of a curriculum which shall embody the fundamentals, both of subject and method, but which shall be sufficiently elastic and adjustable to meet changing conditions and make our secondary education for some time to come both substantial and progressive. This can only be accomplished by a careful study of values, not subjects: the relative values of courses and subjects and the relative abilities of boys and girls.

We must so arrange our high school courses that pupils will be able to get enough work along one line to really give them a foundation in that work. Our courses in manual training, domestic science, agriculture, etc., are now scheduled for too brief a period of time. Many of our high school subjects need vitalizing, humanizing. This is true of the courses in English which are too historical, too unreasonably expensive and ill-calculated to inspire the student with a love for good reading. It is true of our civics which is too bookish. It is true of biology, which is too morphological. It is notoriously true of our physiology, which has utterly failed to aid in forming opinions and habits strongly adverse to the greatest of modern evils; the liquor and tobacco habits, the proper care, conservation and development of physical powers and physical righteousness shall be thoroughly taught. The avoidance and prevention of diseases, proper sanitation, ventilation, etc., must be both practiced and taught concretely. The problem of

properly guarding the health, eyesight, etc., is a real one. Regular medical inspection would be a great help.

As a part of the great and sane movement for temperance in all things, we should find time for teaching scientific and economic temperance. Surely when great and so-called soulless corporations like the United States Steel company, are heading a strong movement to compel sobriety among its employes, the high schools should compel their pupils to get the social, scientific and economic reasons for temperance in all things.

Another problem confronting teachers in secondary schools is how to get enough co-operation between school and home to insure proper habits and social relations among our boys and girls outside of school hours. So long as parents remain either helpless or indifferent about their children after school hours, the inculcation of high ideals, right conduct, proper industry, right living and all the other virtues we are ourselves supposed to embody and teach will continue to be uphill work. It is not any inherent wickedness of boys and girls that we are contending with, but the careless habits acquired out of school hours, in the street, in the pool room, in the bowling alley, and, alas, too often, in the home. These are the things we combat for six short hours, five days a week and nine months a year in our fight for a righteous future citizenship. It is the "shirking pa" and the careless or the care-burdened mother that presents the real problem. It is not much wonder that occasionally a boy finishes high school without having formed habits that would enable him to become a first-rate citizen and a useful member of society. It is not much wonder if a girl now and then graduate from high school without a thorough grounding in some essential things. The causes of the failure of boys and girls with high school training to make good in a business sense lies deeper than the course of study; deeper than the character and influence of the teachers; in the final analysis, the causes of failure lie with the parents and the home. Sometimes our teachers are too weak and too careless. Sometimes we are more interested in marks and subjects than we are in the boys and girls. Sometimes we fail to realize our responsibility and hesitate to assume all of it. Sometimes we fail as character builders. But there are conditions which the school and its teachers cannot control, and therefore, we must share responsibility with the home, the church and the civil authorities. Each of these is responsible just in proportion to the knowledge, influence and power possessed. We, as teachers, often fail to seek the co-operation of these other factors concerned in the protection and development of our young people. We cannot always gain their co-operation when we seek it, but we should seek it. I often wonder that boys and girls are not worse than they are, considering how they are neglected. The first step on our part is to gain the respect and confidence of the boys and girls themselves. We fail to do this often because we fail to understand young people. They do not care for preaching; but they do for the most part recognize and respect a "square deal." A boy is usually a pretty just sort of an animal and he will usually respond to fair, firm, just treatment. If we can gain the co-operation of the boys and girls we will usually have the respect and co-operation of the fathers and mothers. The parents usually

accept the report of the children. Our problem is to see that their report is always one of justice and fair dealing.

These, as I see it, are some of the problems confronting high school teachers today. They are problems which we must solve if our schools are to fulfill their rightful and splendid mission for the citizenship of the rising generation.

VALUE OF ELEMENTARY AND SECONDARY EDUCATION COMPARED WITH PRESENT COST.

SUPT. NELSON SAUVAIN, CASSELTON.

The announcement of such a subject as this doubtless suggests very strongly to most of us that our critics are still with us, and that they continue to be very diligent. It suggests some of their reflections concerning the quality of our school products and their criticisms of the schools themselves. It might prove to be a satisfactory answer to them if we could compare the cost of elementary and secondary school education with the financial benefits derived from it. But, fortunately or unfortunately, this is impossible.

The comparison of education with any money standard is as impossible as the comparison of food with its cost. Food is indispensable to the physical life of the individual and must be had at any cost. The wisdom of increasing its cost in order to promote health and strength, and ways of securing satisfactory nourishment at reduced cost may be considered proper questions of economy. In a republic like ours we may consider our elementary and secondary schools as essential to the life of the nation itself, and to the perpetuity of our free institutions. President Roosevelt has said: "Education may not have made America, but America without education would be lost. It is the only security in a democratic state." Nevertheless, we may consider with profit and satisfaction the doubts that are raised concerning the extent of the benefits the state derives from the public schools in return for the means expended for their equipment and maintenance.

The cost of maintaining and improving our public schools has increased very rapidly. The general liberality shown toward these schools in every state is satisfactory evidence that they are accomplishing desirable results, and that these results are received with appreciation. During the thirty-five years ending 1905, the appropriations for public school purpose have increased must faster than our population. While our population increased 114 per cent, our school enrollment increased 140 per cent and the total school expenditure 360 per cent. This increase has been even more rapid in our own new state of North Dakota than in the older states of the union. For, while the school expenditure per capita of population increased from \$1.75 to \$3.90 in the nation at large, in North Dakota the school expenditure per capita increased from \$1.90 to \$5.94. Three million dollars is now paid for public school education in a single year in North Dakota. The total cost of public school education for the United States is more than one hundred and twelve times this amount. The school expenditure for each person of five to eighteen years of age for the entire country is \$14.63 a year; for North Dakota it is \$19.72. School expenditures have increased more rapidly than the wealth of the country. In fourteen years

the school expenditure for each \$100 of property in the United States increased from 21.7 cents to 25.5 cents, and in the same period the increase in North Dakota was from 18.6 to 31.5 cents.

With this view of the increased appropriations for public schools let us take a glance at the changes produced with this money. While the number of school houses has increased 120 per cent in twenty-five years the value of school property has increased more than 460 per cent. This is one evidence that more attention is being given to the convenience, equipment, healthful conditions and attractiveness of our school buildings. During this same period the average length of the school term has increased 14 per cent, and the average number of days attended by each pupil enrolled has increased 34 per cent. In five years the salaries of male teachers have increased 18 per cent and the salaries of female teachers 10 per cent. The average number of years of schooling of each individual of the population in 1880 was 3.96 years. Twenty-five years later this average had increased to 5.33 years.

These facts show that the increased expenditure has given to the schools increased opportunities to accomplish their purposes. For they have the advantages of better quarters and equipment, longer terms, better attendance, better salaries for securing desirable teachers; and they have enrolled a greater per cent of the total population and retained them for a greater number of years. So much for the opportunities afforded the schools. Now, what use have they made of these to give financial returns to the state and to the pupils themselves? Here figures cease to answer. As inaccurate as the foregoing figures, based on statistics, may be, there is nothing nearly as reliable, available for answering this question. Nothing but estimates can be given.

Nevertheless, for all this expenditure, there is a real return in dollars and cents. Many expenditures are saved because of the work of the schools. Reformatory and penal institutions are expensive; and much of their cost, and that of criminal courts, that are so closely related to them, is made unnecessary when our schools accomplish their purpose well. The cost of supporting dependents and delinquents is likewise decreased. And more than this, the increased earning power of those who are in public schools means wealth to the state and nation as well as to the individual.

In 1902 the Mosely Commission of twenty-six British experts visited this country to investigate our school system, from the kindergartens through the universities and professional schools. This commission was organized and supported financially entirely by Mr. Mosely. He tells us that his reason for such an undertaking was his observation of American engineers in South Africa, and his desire to see what "sort of country it was that was responsible for sending so many level-headed men to the Cape." Dr. Harris says: "The occasion put forward as the ground for the appointment of the commission is in itself delicate but overwhelming piece of national flattery—in a good sense of the word 'flattery.' For it assumes as the most real of facts an achieved greatness of the United States in industry and commerce, and seeks to find its source in a self-conscious and reasonable

preparation for it on the part of our people in the education of the rising generation."

In connection with this investigation Mr. Mosely himself visited this country several times. The preface of the report of this commission is written by him. In it he says: "From a purely business point of view, Americans see in the money spent on education a magnificent investment for their country." "It has sometimes been urged that the American is a materialist. Those who hold such an opinion can not, I think, have carried their analysis very deeply; and they fail to distinguish between materialism and ambition—qualities in reality as wide apart as the poles, although very easily mistaken at first sight. The one has every vice, the other every virtue. Personally, I credit the American nation with an intense ambition not only to raise themselves individually, but also to use their efforts for the raising of their fellows and for the furtherance of civilization." In their joint report the commission gives the following significant statement: "Although in the past the belief in education has been the effect rather than the cause of American prosperity, during the last quarter of a century, education has had a powerful and far-reaching influence, and it can not be doubted that, in the future, it will become more and more the cause of industrial and commercial progress of national well-being."

In one of the individual reports on our public school systems, a member says: "In America this system is universal and works well, and moreover people are all quite satisfied with the results. The second general impression made on me was again astonishment at the universal desire for education, and the best kind of education, evinced by all classes of the community." "Everywhere the desire for good education exists and grows, with the result that nobody objects to the large sums of money expended in education. In one place we heard of an economizing town council which, finding money scarce, abolished the kindergartens and the evening schools. Public indignation was so strong that after a few weeks the schools were reopened and the city fathers had to try another method of saving money. In many cities one-half of the total local expenditure was devoted to public education."

Another member says: "The task of the American elementary schools differs in two important respects from that fulfilled by our schools at home. In the first place, they have to form to American citizenship and to train to English forms of speech the children of the immense bodies of foreign immigrants who are pouring into the country. This they do with remarkable success. The skill with which children, who in the home circle use only Italian or Yiddish, are brought to employ English as their familiar tongue, and with which they are imbued with sentiments of American patriotism, is beyond all praise." Another member, speaking of the commissioners, says: "In general they express the opinion that the organization of secondary education as part of the public school system induces a larger proportion of young people to prolong their studies than is the case in England, and also results in a more uniform level of attainments on the part of students entering the higher institutions." Another commissioner says: "The problem which the American educators seem to

me to be attempting to solve is how to give the children those qualities which will make them good citizens and competent workers, men and women who will be resourceful, self-reliant and adaptable, who will be able to observe accurately, record their observations correctly, compare, group and infer justly from them, and express cogently the results of these mental operations." "I have spoken to many business men, English and American, who have offices or works on both sides of the Atlantic, and nearly all agreed that as a general rule the American boy on leaving school, even if he does not know more, which he often does, is more intelligent, resourceful, adaptable, harder working, and more anxious to continue to improve his education than is the English boy of a corresponding age."

It is so much more pleasant for us to have others speak of us in these ways than it is for us to say these same things of ourselves. Compliments coming from such sources are less liable to discounts. However, those pleasant words of commendation coming from such eminent, competent and impartial authorities can not make us satisfied. They may give us encouragement, and in part discourage and refute our fault finders. Yet we can not claim that our public schools are now giving the results needed in a republic like ours. And even these same commissioners who speak so encouragingly see very clearly the glaring imperfections of our public schools.

The greatest problem in education today is how to secure good teachers. A great majority of the teachers in our public schools today have received no special training for their important work. And if we are to believe the members of the Mosely commission, the lack of skillful teaching is to be found especially in our high schools.

The second great problem is how to secure good attendance. In general there are two ways—compulsion and attraction. Compulsory education is now the general rule in nearly all our states. The solution of the first problem will do much toward the solution of this second one by making the school attractive to the pupils. Only 70 per cent of the population from six to eighteen years of age are now enrolled in our schools; and the average daily attendance of those enrolled is less than 70 per cent. It is evident that the average daily attendance is less than 50 per cent of the population from six to eighteen years. Our National Commissioner of Education, Dr. E. E. Brown, says that the ideal should be an average daily attendance of approximately 95 per cent of the population from six to eighteen years.

In each grade a pupil can gain much more benefit from his school work than he did in the preceding grade. Therefore, while we gain encouragement from the fact that our whole population has received on an average five and one-third years of schooling, and that this average is increasing rapidly, this result remains very unsatisfactory.

A general average of scholarship for our whole population equivalent to that possessed by pupils in our sixth grade is not sufficient. When this is increased from five and one-third years to eight years, the benefits derived from the schools will be more than doubled, yes, much more than doubled.

This gain must come, and it will come more through attraction than compulsion.

Criticisms have been made against our high schools for costing more per pupil enrolled than the elementary schools. It is claimed that these schools benefit the favored few, and that it is therefore unjust to maintain them at public expense. Figures used in support of such a criticism are generally deceptive and unfair to the high schools. If the per cent of the high school enrollment in relation to the total enrollment is to be found, the total enrollment should properly be restricted to territory tributary to such high schools. Then if allowance is made for failures in the elementary grades and for other unavoidable causes that prevent pupils from reaching the high school, the per cent of efficiency of many of these high schools will be found to be remarkably high.

The secondary schools of our country show a spirit of readiness and willingness to respond to the demands of American progress. Their possibilities for usefulness to the nation are only beginning to be realized. Their benefits as democratic institutions are becoming more generally appreciated. They are destined to become to an increasing extent the peoples' university.

THE MANDAN PLAN OF CLASSIFICATION.

SUPT. P. T. M'NALLY, MANDAN.

That every pupil should be required to do the same amount of work, in the same time, seems absurd, and one who make such a statement, some will say, is behind the times. But let us see if we are not really trying to do this very thing, and we congratulate our selves most heartily, when we have succeeded in bringing a major part of a school "up to grade," in a given time.

There is a course of study of eight years, for the grades, and another of four years for the high school. The first eight years are carefully divided, in most cases, into half-year divisions, and in some courses of study, these half-year divisions are again divided into still shorter time spaces, with even the page of the text book, where the grade shall be at a specified time. The exact second of arrival at this much desired point, is not given, but might as well be called for. All trains on these lines must run on time, or be promptly annulled.

This plan would be all right and would be a very easy one to follow, if children were all of the same mental ability and could do the work of the course of study at the same rapidity and with the same efficiency, and that the individual child worked with the same efficiency at all times. It is well known that the above condition does not hold good, for there are times when even the brightest child appears to be going slow and accomplishing but little, and there are long stretches of time, when we are in no doubt as to dull child's going fearfully slow, and we sometimes tell him so, with more frankness than sense.

Then, why should a course of study have so many fixed points toward which the pupils must be hurried at a predetermined speed? If they do reach one of the points in the required time, they must again go over the work, too often in the same old way, and under the instruction of the same teacher.

Then we have one of the most difficult problems of school supervision to solve, viz: What shall we do with the "holdovers?" How keep them from spoiling the next lower grade? Half-yearly promotions have decreased the number of those who are compelled again to go over the work, but the number of these unfortunates is still very large, and the number grows larger further on in the course of study. Then, why promotions at all, except from the grades to the high school.

The standard that must be reached and the amount of work that must be done in a given time being a fixed quantity is the cause for the so-called "holdovers." In other words, the course of study is laid out for that mythical personage, "the average child," and does not take into consideration the very bright child, nor the very slow one.

No matter how slow a child may be, he has, or should have made, some progress in the work of the school, during the time he has been in continuous attendance at school. That he is no further along the path of men-

tal development, than when he came under our instruction, few of us would care to acknowledge. I leave out of consideration the mental defective.

Then, why not take into consideration what the child has learned, be that much or little, and build on that, rather than have him go over the work till he catch the train, at the appointed time, for the next higher grade. Why not take into account the capability of every pupil for doing well the work of the school, give him a chance to work to his full capacity; let him fully understand, very early in his school life, that his position in the school depends largely on himself, that he will be given the opportunity to do the work of the school as fast as he is capable of doing it well. To this end has been devised what, for want of a better name, I have called "The Mandan Plan of Classifying." While this plan is not new, still it contains some features which are not found in any other that has come to my notice.

It is well known that all primary teachers arrange the first year pupils, as soon as they can determine, approximately, the ability of these pupils to do the work of the school, into three or more groups. This is done, in part, to conserve the teachers' time and secure the benefit of whole class teaching. There is no one who will say that this plan of grouping according to mental ability and quickness to do well in the first year of the school has not been a success and will continue to be the only rational way for first year pupils. That there is less of the pupil's time lost in the first year of the school than in any other place in the course of study, few will care to deny.

The Mandan Plan of classifying, briefly stated, is as follows:

The pupils are, from the beginning of their second year in school, classified into groups, as large as possible, according to their quickness in doing and ability to accomplish well the work of the course of study. It does not mean by this, that all the pupils of the same group can do all the school work at the same rate, but that the amount of work done by the different individuals of the group, from day to day, in the required subjects of the course of study, the sum total of this work is the same or nearly the same.

Each teacher is given two classes, preferably not of the same year of the course of study. One class, the larger one, will contain those pupils who need but little personal help from the teacher, and will do well under whole class instruction; the other class, the smaller one, will contain those pupils who need, and can thus get a great deal of individual help from the teacher.

There is no limit to each year's work of the different groups, other than the ability of the pupils to do well the work required of them. The course of study must fit the children, not the children be made to fit the ready made course of study. Every group of the system is given the work suited to that particular group, and necessary for its progress; it is given all such work that it is capable of doing. There is no hurrying and no cramming for stated examinations, for there are none. The individual pupil is progressing from the time he enters the school, be that progress fast or slow.

There is no formal number work required in the first year of the course of study; after the first year, work in number is given when and as fast as the children are ready for such work.

Above the third year of the course of study, there are frequent written reviews. The time given to a single review must not exceed that given to a recitation of the subject being reviewed. The results of these written reviews are recorded, together with a syllabus of the work on which these reviews are based, in a book provided for every group of the system. These results, with a general, written review of a year's work, will aid in determining the progress of the children and the need of shifting the pupils from one group to another.

The groups of the entire system are re-classified, whenever found necessary to keep up whole class teaching, and pupils are shifted from one group to another as their progress may demand. The slow pupil is not hurried, and the fast one has no occasion for slowing up. It has been found expedient to reclassify the different groups at least once a year.

Summed up, the plan is this: The children that work the best together are classified into groups and given an opportunity to finish the work of the course of study as soon as possible. Every day's work of the individual pupil is made to count to its full measure towards finishing the work of the course of study. There is no "marking time," waiting for the day of promotion.

THE PROVINCE OF THE HIGH SCHOOL IN THE PREPARATION
FOR LIFE.

SUPT. LOUIS P. LINN, KENMARE.

Within the last three decades the state has almost completely taken upon itself the providing of secondary education so it may not be out of place to inquire as to how it is meeting its obligations in giving its coming citizens a well rounded education. The last report of the Commissioner of Education tells us that 89.37 per cent of the secondary school pupils of the United States are to be found in the state schools, while up to the eighties of the nineteenth century the state was educating less than half of those in secondary schools. From these figures it may be observed that our process of secondary education is becoming very much of a public concern.

As the topic assigned to me indicates a questioning as to the province of the high school in the preparation for life it may be well to inquire as to what the generality "life" means. Too often it is looked at in the very narrow sense of meaning of "making a living." Of course the broader definition includes that and a great deal more. I have hunted in vain for what would seem to be a comprehensive definition of "life" in its broader meanings, but it seems to be one of those hackneyed terms that everybody thinks he understands but which no one adequately defines. Webster's best definition is that it is "a certain way or manner of living with respect to conditions, circumstances, character, conduct, occupation, etc., hence human affairs." Perhaps that definition hints at an expression much used today: "Adjustment to one's environment." One man says that life is enjoying health. Montaigne says that "the mere lapse of years is not life," but that "knowledge, truth, love, beauty, goodness and faith alone can give vitality to the mechanism of existence." Life in the sense used in the topic under discussion includes physical, political, mental, social and industrial efficiency. In other words, it means a healthful body with knowledge how to keep in such a condition, intelligent citizenship which includes interest and participation in public affairs, a mind developed to give self control, a culture of action and bearing and a desire to promote the welfare of society, and last, but not least, ability of self support, for Emerson well says: "No man can justify his place in the world unless he earns his living."

The first high schools were established in this country about 1825. Boston led in the movement but the plan for a longer period of general education at public expense was almost immediately taken up by a number of other cities. At first this secondary education was for boys only, but very soon provision was also made for like education for the girls, although at first the sexes were not brought together for education. An extract from the first report of the Boston high school is illuminating as to what it was designed to do. It says: "It should never be forgotten that the grand object of this institution is to prepare the boys for such advancement and such pursuits in life as they are destined to after leaving it."

The academies had been established earlier with some such like object, but had soon degenerated into preparatory schools for the colleges, and the high schools soon became a like cog in the college wheel. Our Commissioner of Education, E. E. Brown, who has made a very thorough study of the history of our secondary education, says in his "The Making of Our Middle Schools," that the high schools did not keep to their original purpose as expressed in the extract from the first high school report, already quoted. According to Brown, "the most powerful single agency affecting the course and the methods of instruction in the better secondary schools was for many years the entrance examinations of the several colleges," and "the college examination was the chief end and aim of much of the work in the best courses offered by the secondary schools." There seems to be no denying that whatever the purpose in the establishment of the high schools they soon became simply "feeders" for the colleges.

It would next be in order to ascertain if the college entrance requirements were of such a standard that secondary schools governed by them could furnish an adequate preparation for life to the pupil not able or not caring to take advantage of a college education. The earliest requirements were Latin, Greek and Arithmetic, but by the time the high schools were started they also included Geography, English Grammar, Algebra, Geometry and Ancient History, with the particular emphasis on the two classical languages. About 1855 science courses were formed and the requirements changed accordingly. Since then there have been some modifications. Greek is no longer held to be of the utmost importance and Latin is not now usually an absolute essential for college entrance. Some changes have been made through a desire on the part of the colleges to meet the secondary schools half way. Brown is the authority for the statement that with all the efforts put forth to improve the end of high school education, the tendency to make that end preparation for college has been remedied only in part. He goes on to say that "such a state of things did not answer to the organic continuity of instruction which American social conditions seemed to demand. High schools acting as a stepping stone to colleges subordinate the useful and practical to the theoretical and ornamental either in the subjects taught, in the way they are taught, or in both."

A recent writer has well said that "it is manifestly unfair to compel all students to take a special course for college admission when only a small portion go to college," and that it is "just as unfair to deny college advantages to those who have not taken the required course but who find that at the close of their high school work that they had the inclination to go to college and a way has opened for them to do so." The committee of ten of the National Educational Association has made important and eminently fair recommendations looking toward more liberal college entrance requirements, and though they have not been generally adopted, their influence has been wide spread and pervasive. The National Society for the Scientific Study of Education (formerly the Herbart Society) devoted a great deal of time of their 1907 meeting to a discussion of "vocational studies for college entrance," and it seems quite evident that the time is

not far distant when the college will be influenced or forced to accept graduates of approved first class high schools, whatever course of study they have followed. Our own state university is very liberal in this respect, accepting commercial, manual training, domestic science and other vocational subjects for entrance to its freshman class. But, unfortunately, not all universities are as fair and many still seem to regard the province of the high school to be solely preparation for college. The ultra conservative universities which succeed in limiting high schools to courses that fill only their own narrow requirements are doing far more harm than good in thus crippling the efficiency of our secondary school system.

It might be well to inquire as to what educational authorities think the high schools should do. A western school man proclaims that "unless inspiration, aspiration and character can grow out of our schools they serve not their purpose." Another western man thinks rejoicingly that "the pupils are more and more taught to observe, to think and to do." It is coming to be quite an agreed thing that in any and every course English is a prime requisite and, as one prominent educator puts it, "the correct and ready use of the mother tongue in written and spoken language is the most important factor as a preparation for life." G. Stanley Hall demands a practical course including English, science and motor training. A Boston high school teacher of English sums up what a secondary school should do by saying that it "should graduate pupils who can, first, earn their own livings; second, discharge their duties as citizens; third, participate in the refined pleasures of modern life."

It is much easier to arrive at conclusions as to what school men think secondary education should provide than it is to get a collective opinion of what the people want. W. B. Jacob, of Brown University, who has made a study of the question from that point of view says that "it is not multiplicity of studies which is called for, but rather the adapting of studies to meet the needs of the individual," and that there is an "emphatic demand now for elective courses rather than for elective studies." John Dewey, the eminent psychologist of Chicago University, says: "The schools are not doing and cannot do what the people want until there is more unity, more definiteness in the community's consciousness of its own needs; but it is the business of the schools to forward this conception, to help the people to a clearer and more systematic idea of what the needs of modern life are, and of how they are really to be supplied."

The principal of the Louisville high school for boys wrote a large number of letters to business men in various parts of the United States asking what education should be given to the rank and file of boys preparatory to successful business of any kind. The replies laid the most emphasis on ability to write, speak and spell the English language correctly. They also seemed to agree that "the more education a boy gets the more apt is he to discover short cuts and avenues of saving that an ordinary mind simply would not address itself to." To the writer of the letters, the most interesting feature of these replies was the emphatic expression of opinion by certain great business corporations that cultural studies are of vast importance for boys.

In the far reaching inquiry of the Massachusetts Commission on Industrial and Technical Education, it seems to be very clearly brought out that the parents of children who have quit school at the completion of the eighth grade to go to work, could afford to send the children through high school, but neither they nor the children could see any practical benefits to be derived from the courses offered and most of the parents declared that if there were courses definitely vocational their children would pursue them. It has, however, been shown by this same report that even one or two years of a general high school course has added to the industrial efficiency of the individual, but it is undoubtedly true that a course fitted to special needs would have given much greater efficiency and perhaps held students in school for an entire course.

Today the high schools are realizing their privileges and responsibilities as never before. Brown says that "the later movements (in secondary education) have been mainly directed toward the better adjustment of our secondary schools first, to the schools above and below; second, to the changing needs of American life; and third, to the individual capacities found in those schools." Courses of study are being enlarged and enriched and the number offered increased. More attention is being paid to liberty of election under thoughtful advice, with proper attention paid to particular needs and ability of student. Studies once deemed of utmost importance are now being relegated to the rear, or, as G. Stanley Hall says of Latin, compelled "to go way back and lie down." Other cultural studies retained are being changed out of all semblance to their former content through having the breath of life blown into them and their practical side emphasized. Purely disciplinary studies are being dropped for those of evident value and which also include plenty of mind discipline. Cultural subjects are not being neglected, but are being properly balanced by vocational subjects. The high schools are getting some new ideals before them as to serving the people and being real people's colleges and with present tendencies will not much longer be subject to the accusation, often unjust, that they educate from rather than for life. As a Philadelphia commercial high school man puts it, "the old division of studies into educational but not useful and useful but not educational is fast disappearing."

High schools are adapting their courses to especially serve local needs or fit local environments. For instance, in towns devoted to textile industries vocational subjects relating to them are offered. Perhaps one of the best adaptations to local needs is shown by the courses offered in the now famous Columbus, Georgia, high school, where school and shop are yoked together to the great benefit of both. At the recent graduating exercises in that school two girls made an entire dress during the course of the evening and before the eyes of the audience; other girls took dictation from representative business men in the audience and furnished for inspection neatly type-written transcripts, while the boys showed masterpieces from the shops. These things were not done at the expense of the literary side of the program, but it was plainly shown that in Columbus, at least, the high school was actually preparing its pupils to lead useful lives.

The four or five years spent in high school are largely in vain unless they make one better able to serve himself, society and the state. The increasing number of elective courses in our high schools make it possible for one to get not only general training along lines that make for good citizenship, noble character and well equipped intellect, but also to get at least some and in many cases a good deal of special training along some particular line leading to a definite calling or occupation. The pupil desirous of entering college is certainly well taken care of and commercial manual training, agricultural, domestic science, and teachers' training courses, prepare with some definiteness of aim for business, carpentry, farming, home making and the teaching profession.

The test of our high schools today lies in the answer to the query, does the training received there pay from the material, ethical and social viewpoints? Unless it gives the boy or girl increased ability to earn his own living; unless it leaves him with a broader view of what success in life means than is held by the coarse man of wealth who calls his ill-gotten gains success; unless it makes him acquainted with what he owes the state and society and what benefits and rights they confer upon him; unless, finally, it makes him a more useful, intelligent, and happy individual, it has not given him the preparation for life that is its province.

America has been proud of her high schools and with a wider outlook as to their mission, preparation for life—life in its fullest sense—she will have even more reason to feel proud of this thoroughly American institution. The Macedonian cry comes ringing over to the high schools today to give every young person an equal chance in life through its ministrations and from present hopeful indications the call will not be sounded in vain.

ARE OUR SCHOOLS MEETING THE REAL NEEDS OF THE YOUNG PEOPLE OF NORTH DAKOTA?

SUPT. P. A. M'MILLAN, CARRINGTON.

More than one billion dollars of money is now invested in education in this country, and the annual expenditure of money has passed the four hundred million mark and is rapidly approaching five hundred million. The state of North Dakota has about forty millions invested in her schools. Nearly half a million men and women are engaged in the work of education in this country and the individual happiness of twenty-five million children, and the safety and liberty of the nation depend on our educational effort. In view of these facts this question becomes one of very great importance and is therefore one worthy of very serious consideration, worthy of more capable presentation than I am able to make.

Are our schools meeting the real needs of the young people of North Dakota? Yes, better than ever before. In what respects?

More money is being put into our school work than ever before. In the United States in 1880, total wealth forty-three billion, school expenditure, seventy-eight million, or eighteen cents per \$100; 1890, total wealth, sixty-four billion, school expenditure, 140 million, or twenty-two cents per \$100; 1900, total wealth, eighty-eight billion, school expenditure, 215 million, or twenty-four cents per \$100; 1909, total wealth, 130 billion, school expenditure, 350 million, or twenty-eight cents per \$100. The school expenditure shows an increase of 140 per cent while the population has increased 37 per cent. On the basis of wealth the school expenditure is over 55 per cent greater than in 1880. In this general movement the figures for North Dakota would appear even more generous.

Better attendance is being secured. In the United States the enrollment increased from 68.8 per cent in 1890 to 72.4 per cent in 1900 and to 76.6 per cent in 1908. In North Dakota the increase in enrollment was from 71 per cent in 1890 to 81.56 per cent in 1907. In the United States the average attendance per pupil has increased from 44.7 days in 1870 to 74.3 days in 1907, and the average number of days in school increased from 132 days in 1870 to 152 days in 1908, while in North Dakota the increase in average number of days school was from 113 days in 1890 to 142 days in 1907.

While these facts are very significant, they might not be conclusive in themselves, but added to the foregoing are the facts that the teaching force is better prepared (and wiser) today than ever before. Teachers are better paid and the teaching force from top to bottom is more permanent and possesses a higher degree of devotion to duty.

As a result of the increased expenditure of money and the better preparation of teachers, the courses of study have been and are being greatly improved and enriched and better adapted to the practical needs of the people. These advancements have come from within the profession and not from the public at large. Our educational leaders have a better under-

standing of educational problems and a larger grasp of the proper aims and methods than ever before.

The actual results seen today are far superior to those of the good old days of which we still sometimes hear. The education of the grades has been of such nature that the enrollment in high schools has had the marvelous increase from 297,000 in 1890 to 848,000 in 1907, an increase of 185 per cent, while population increased but 37 per cent. The result is and will be a corresponding increase in attendance at colleges and other higher schools.

The Springfield, Mass., tests have conclusively shown that their pupils today are far superior to their pupils of the same age of sixty years ago, and what has been done in that city has doubtless been duplicated to a greater or less extent in all our city schools, and doubtless on the whole even the rural schools of today are far superior to those of fifty or sixty years ago.

School building is better and more modern, and better equipment, and better texts are found in our schools today than ever before.

We in North Dakota are to be congratulated on the progressiveness of our state high school board and our state university, which recognize the correctness of the proposition that the college and university are for the students of the high schools rather than that the high schools are for the college and the university.

Thus, an optimistic view of educational conditions is forced upon us. We would not grow pessimistic even in connection with the expenditure of nine millions by the national government for a battleship, not even if two such ships had been built, because, forsooth, such an amount might have sufficed to construct so many school buildings, when such is constitutionally out of question, especially when we are expending two hundred and fifty times that amount for liquors and tobaccos, some of which is being paid out by some of the very people who are making much noise about the misuse of money for ships.

Though we are obliged to take an optimistic view of educational progress, we as teachers and educators would be recreant to our duty if we should look always backward upon great achievements with arms folded in swelling satisfaction, and should not also look carefully into the present and measure present conditions and results against evident present and future needs. Are our schools meeting the real needs of North Dakota youth? In some respects we must answer, "No, not as fully as they may and should do." None will deny that there is room for improvement.

Probably the greatest point of failure today in North Dakota school work as well as in most other states, is in the preparation of our teachers. Without well prepared teachers it is impossible to secure a successful school. A poorly prepared teacher means poor, faulty, superficial results in every branch, worst of all in the English studies which are: Spelling, reading, language, writing and literature. It is well known that a large proportion of our teachers are unprepared in every respect. The teacher problem is the greatest of all school problems and bids fair to remain unsolved, still, when most other school questions shall have been settled. The settlement

of this problem in any adequate measure is absolutely conditioned upon remuneration, that is, upon wages and pensions. Salaries are rising, but it is by no means time to cease our efforts looking to reasonable pay for the work of the teacher.

A comparatively few districts pay moderately reasonable wages, still fewer provide any support for worthy teachers after they have spent their lives in the work of educating the nation's citizens. With the matter of proper support provided teachers will become more efficient, and we shall see better results.

Another place of weakness is in the matter of superintendence or supervision. The majority of our public schools are practically without superintendence, for over half of the children of the United States, and two-thirds of those of North Dakota, are in rural schools. The county superintendent is not a superintendent in the proper sense of the term. He has not the legal rights of a superintendent, and if he were given such rights and powers he could not exercise them, as the task is too great for one person. Assistants or deputies will not fully solve the problem. Township or district supervision with or without consolidation is the proper solution of rural school superintendence. Give a township or district a superintendent with the same powers as those possessed by city superintendents and as good or better results will be accomplished. Indeed, rural schools under adequate superintendence will possess certain distinct advantages over city schools. Proper rural superintendence will result in definite, systematic work by holding teachers and pupils to certain definite requirements; it will secure proper discipline, now so sadly wanting; it will serve to unify public sentiment in favor of better, more efficient schools, better teachers and longer tenure, longer terms, better buildings, more equipment and more library and supplementary books. It is difficult to see how the rural schools, which should be the best schools in the state, can ever be reformed and receive the benefit of modern improvements now being rapidly installed in progressive cities, without district supervision. Without question rural districts can easily provide such superintendence and really they cannot afford to neglect it. The country commission appointed study rural conditions with the purpose of discovering a method or means of rendering rural life more attractive, found that the rural school was the key to the situation, but rural life can never become attractive to any people until they secure adequate superintendence for their schools. With such superintendence rural people can and will render rural life not only enduring, but more attractive, and more wholesome than city life can ever become. Any scheme aiming to create a rural class will and ought to fail. But, efficient rural schools will make country life the happiest, and will supply the professions, the factories, and commercial enterprises, and the highest offices of the nation, with yet stronger men.

Another point of weakness in our schools is in sanitation. Lack of attention to sanitation, including ventilation, is general and widespread, all too prevalent in town and city schools, and almost universal in rural schools. It is contradictory and homicidal to attempt education without

the best physical basis. No half successful or inefficient means of ventilation should be tolerated by school authorities. The state should compel hesitating districts to provide at once efficient means of supplying fresh air to pupils. This is absolutely necessary if the fight now so enthusiastically entered upon against the great white plague is to be successful. It is necessary also before pupils can make that progress in mental development which is their right and the right of the state. A constantly fresh supply of oxygen is essential to either mental, moral or physical growth, and is the inalienable birthright of every American child.

Another point of failure in our schools, improving as they are, is in lack of regular attendance. While the compulsory education law has done good, it is largely a dead letter in a majority of the districts especially in rural districts. The law authorizes the employment of truant officers in villages and cities. Provision should be made for district or county truant officers for rural districts, a method employed with success in other states. It has been the enforcement of compulsory attendance laws that has made it possible for Germany to take and hold first rank in general education.

Probably the feature of the topic which most interests city superintendents is that of the modifications which the course of study is now so generally undergoing. Under present conditions rural schools have made and can make but slow progress. The reformation of the course of study in city schools is now assured.

Great improvement in physical instruction has been made in many of the city schools, but it is still a much neglected subject. The city boy and girl are much handicapped in point of physical development by reason of their environment, and physical culture is required to give proper growth and strength. We must not forget that a trained brain and a body weak in muscle and in undeveloped vital organs is unnatural and dangerous to both the individual and society. The state has done well to place upon her statutes a mandatory law on this matter, but the law will prove to be a dead letter unless we as superintendents vigorously enforce it, requiring regular daily practice. No city or village should be satisfied until it has provided a good gymnasium for this work. Physical culture should look to both development and correction. Every school would improve under efficient health inspection. Medical inspection should be legalized in North Dakota. Every pupil should be carefully inspected at least once a year with reference to conditions that have bearing upon efficiency in school work.

Moral and religious instruction is another point in which there is general failure. While today religious instruction has been left to the church and the home, rightly so, there is a growing feeling that there should be a place in our schools for such teaching. There has always been in our best schools strong moral and even some religious teaching in connection with history, science, literature and patriotism. It has likewise been true that a large proportion of our schools have formally followed an old routine of studies and methods without giving any definite moral instruction. All teaching, and all recreation and school sports should be so conducted as to not only avoid all immoral results, but to foster and build up students in

active morality. The practice of some schools in allowing the irresponsible cigarette fiend a prominent place in the school athletics and sports cannot be too strongly condemned. The little republic of Switzerland has apparently solved the question of religious instruction. Her pupils receive non-sectarian religious and moral instruction at regular times from resident ministers, and it is reported that her citizens are well satisfied with the results. Dr. Harris when in charge of the St. Louis schools years ago followed somewhat the same plan. Religious instruction consistent with constitutional provisions is one worthy of thoughtful consideration, and not to be waved aside in any spirit of omniscience or ancestral worship.

There is a growing demand for the introduction of science, more science, more science, into the common schools. This so far has been confined to the introduction of manual training and domestic science and art into an ever-increasing number of schools. The time has come for the introduction of agriculture and horticulture, also, especially in North Dakota schools. This is pre-eminently an agricultural state; agriculture, the basis of our national wealth, the chief interest in the comparatively wealthy state of North Dakota has reached a crisis; the soil has by misuse and abuse become impoverished, and new methods must be introduced. There is a strong and increasing demand for information looking to deliverance from present diminishing returns from the soil, a demand that must be met. If it is a correct proposition that our schools should prepare for life, then why should not our schools, so generously supplied with state money, take up this matter, if it is feasible. I am convinced that it is feasible. Time for this instruction can be found by the elimination from our courses of some comparatively useless matter in geography, arithmetic, reading and language, and through voluntary effort of pupils outside the regular hours of school, in school flower and vegetable gardens. Annual exhibitions with grain and vegetable judging and with discussions on live agricultural topics should be held in every district. Every high school in the state should seek to maintain a class in practical agriculture. There should be a course of study capable of practical application to rural conditions, including manual training in wood and iron, mechanical drawing, elementary geometrical construction, elementary physical science, bookkeeping, civics, agriculture, horticulture, animal husbandry for boys, and the same for girls except that domestic science should be substituted for the manual training in wood and iron. (Spelling and writing should be included in courses for both boys and girls.) I would, of course, encourage all young people to attend during the entire year, but to such as could not do so, I would offer a short course beginning in December or January. There should be a state experiment farm adjacent to every state high school and the work of this farm and of the agricultural college should be studied by the class in agriculture. If this work cannot be undertaken for our communities without additional state aid, we should not hesitate to request such additional aid. We all know how easy it is to talk about doing a new thing, and how easy it is to go home and continue to drift along in the old way. Many will say, How can we do all this? We can do it by just beginning to do it. It will require thought and adaptation. If we fail to adapt our schools

to the growing need in this direction, we shall have a new class of schools thrust into our midst, to divide the state money with us, as in other states. These schools will draw away support and interest from our present high schools.

In regard to our seventh and eighth grade courses of study, now that we have introduced manual training, domestic science and sewing into these grades, why should we not also give them mechanical drawing, elementary physics, elementary geometry? I find that there is a feeling among the boys of these grades that the instruction there received lacks practical relation to their future lives. However erroneous their opinion on that matter may be, there is every reason why we should seek to make the work of these grades most practical, most closely related to not only the later life of the youth, but also closely related to the work of the high school, thus bridging over the fixed gulf that has long existed between these grades and the high school courses. Only in the degree in which we interest pupils can we secure their active response, and only in the degree in which we secure this live active response can we hold them at this age and secure results that make for thorough scholarship and positive citizenship.

One more weak place would I endeavor to point out, and that is in our language work, especially in grammatical construction and spelling. Do we not know that our seventh and eighth grade pupils find their language work, especially grammar, dry, insipid and uninteresting, in many cases to the point of repulsion, and do we not all admit instantly that there is general, almost universal complaint on the part of our high school English teachers and on the part of our examiners relative to poor preparation in English? What is the cause of this dissatisfaction? Is the subject more difficult than other subjects, or are there other causes? If so, what? Personally, I am of the opinion that in the first place we do not place sufficiently strong teachers in these grades. Salaries should be higher and teachers of college training with successful experience should be secured for these grades. In the second place, I am of the opinion that we give too much drill on rules without making sufficient practical application of them, in written and spoken effort. "We learn to do by doing," is a very old maxim, the German form of which is "Through self-activity to self-dependence." We should devise some method of teaching English by which the pupil shall be exercised in a larger use of the English language in both spoken and written effort, in which the pupil must keep constantly before him the necessity of avoiding all errors in language. At the same time, he should be exercised in detecting errors in the work of other pupils and in correction of the same. He should be led to discover new forms of expression hitherto unused by him. He should be held to correct usage in every subject and in every recitation. It will require a great deal of practice to overcome errors fastened upon children in many homes, but practice will do it. Monthly and final grades should be given on some such basis as that just suggested. Knowledge and use of correct English can best be secured by means of comparatively little time spent in intensive study of rules and comparatively much time spent in

actual oral and written effort. Lifeless memorizing of rules without ability or inclination to apply them is as useless and valueless as habitual error without knowledge for correction. I would suggest as a method of English work the use of written composition and short talks upon live subjects, such subjects having been previously assigned from regular texts in history, reading, geography and science and from current reading, a select list of good magazines and books being kept on file for this purpose; pupils to be graded on the basis of amount and excellence of work done, each recitation of written or oral composition to be followed by a recitation on the correction of errors, substituting correct forms for the incorrect, with an intensive study of the rules violated by the errors, errors in spelling not overlooked. In this way we can give all the technical grammar required, and we can secure an active live interest on the part of the pupil that will bring desired results and lead him to take pride in his language as he does in his mathematics and manual training.

In general, I am strongly of the opinion that in all our instruction we can improve by so arranging and adapting it as to secure self-activity on the part of the pupil. Let him exercise as many of his faculties of intellect, nerve and muscle as possible in every study.

Let his school life be one of action, that through self-activity he may attain to self-dependence, that through doing in live interest he may attain the power of doing well what he undertakes to do. Let no one deceive himself that a child can ever attain to individual well-being and become a good citizen by being a passive receptacle for set amounts of selected educational material. He will learn to read only by actual effort to read, to write by writing, to spell by spelling, to use correct language by practice in using it, to measure and saw and plane by measuring, sawing and planing, to cook by cooking, to grow trees and corn by growing them, and so on through the whole list of things to be learned. The realization of the relations existing between a human being and the outside world of mind and matter and natural laws can be possible only through the exercise and development of the human nerves and muscles. The more fully the pupil secures control of all his faculties of mind, nerve and muscle, the higher the degree of education he will be capable of attaining.

In the reformation and reconstruction of our course for the elementary grades, which is now fully upon us, we must be extremely careful to escape one very great danger—the danger of a lack of thoroughness. Bearing in mind the prime necessity of conserving the physical, mental and moral well-being of our youth, our new course, while it is being modernized to better fit for life, must be simplified sufficiently to make thoroughness in physical, mental and moral training possible. We need more thoroughness in essentials, more thoroughness in teaching from superintendent down through all the grades.

THE TOBACCO HABIT AMONG PUPILS: IS THERE A REMEDY?

SUPT. THORDARSON, MAYVILLE.

The present activity in the field of education is in response to the public demand for "greater efficiency." This can be attained without a very radical change in the teaching force or in the methods and ideals of education; but there must be a considerable sloughing off; new means must be adopted and teachers must strive more mightily toward the goal of education—to develop physique, to train the mind and *to build character*.

In the past, schools have over-emphasized intellectual training for culture, and even in the progressive twentieth century, too few educators are wise and brave enough to break loose from the traditional and develop the whole youth rationally and symmetrically. The attitude of the schools is reflected in our educational literature and in teachers conventions which concern themselves largely with such academic problems as texts, courses and methods.

This is not right. It is based on the popular fallacy that "intellect is above character." We are still chained down by "the heavy post;" or, perhaps, we are kept in the rut by our system of examinations. But many now realize that we have too long neglected our chief duty, *to build character*. And right here is the greatest need of "greater efficiency."

When a captain of industry seeks to enlarge the profits of his factories, he may do so either by increasing the output or by decreasing the waste. The public schools, "the factories of American citizenship," are being called upon to increase the returns on the educational investment of the state. They, too, must not only use positive means to improve their product, but they must also reduce the friction and waste to a minimum.

It is already manifest that schoolwork cannot be highly efficient, unless the pupils are in the best physical and mental condition. Anything that lowers this standard is an impediment resulting in a waste of time and effort; any habit that causes friction or renders the workers inefficient should be eradicated.

That the use of tobacco is, in a general way, harmful to the growing boy, is generally conceded. But it is especially detrimental to the school boy. The tobacco habit is, unquestionably, a pernicious one and works havoc with the health, the mental vigor, and the morals of the school boy. This statement may seem too sweeping but it is fully borne out by the testimonies of keen observers in and out of school and by the conclusions of scientific investigators.

The bad effects of tobacco on the boy's health are easily detected. When he uses it for the first time, nature rebels as it does when any other poison enters the system. While tobacco hinders every function of the human organism, it is most harmful to the senses, the heart, and the nerves. The tyrant, nicotine, drags down and crushes his foolish subjects as cruelly as his kinsman, King Alcohol. But their thrones are tottering.

The pyridine and nicotine in tobacco poison the red corpuscles of the blood, destroying their hemoglobin and diminishing their oxygen-carrying capacity.

Dr. Richardson in his book, "Diseases of Modern Life," says: "Tobacco diseases the blood, the mucous membrane of the mouth, the heart, the organs of sense, the eye, the ear and the brain."

Dr. Gilson, the medical director of the U. S. Navy, says: "That many candidates are rejected each year on account of defective eyesight and heart troubles caused directly by the use of tobacco."

Dr. Seaver of Yale, says: "The heart action is increased when tobacco is used, not because it stimulates it but because it partially paralyzes the vagi nerves which control the heart."

In a class of one hundred and eighty-seven students at Yale, Dr. Seaver found that the non-smokers surpassed the smokers 10 per cent in weight, 24 per cent in height, 26 per cent in chest girth, and 70 per cent in lung capacity.

Dr. Hitchcock found nearly the same differences at Amherst College.

The physical effects of tobacco on the pupil are not the worst. His loss in mental efficiency is appalling. The lowering of scholarship among boys who use tobacco may be caused indirectly by their state of health, but the ultimate result is the same.

Principal Bancraft of Phillip's Academy, says: "Tobacco is the bane of our schools and colleges. Teachers who have given attention to the subject agree that boys go down under its use in scholarship, in self-respect and in self-control. It takes off the fine edge of the mind, injures the manners and dulls the moral senses."

Dr. A. C. Clinton of San Francisco says: "I have seen bright boys turned into dunces and straight-forward boys into cowards by cigarette smoking."

The New York Medical Record remarks that "sewer gas is bad enough, but a boy had better learn his Latin over a man trap than get the habit of smoking cigarettes."

In every hundred who take the highest marks at Yale only five are smokers and ninety-five are non-smokers.

In the polytechnic schools of France, the effect of smoking upon scholarships became so great that the government absolutely prohibits the use of tobacco in all government schools.

Dr. Brewer of the St. Louis Insane Asylum says: "The use of tobacco among the young is productive of mental and moral deterioration."

The medical report on the use of tobacco by the cadets at the United States Naval Academy contains this conclusion:

"It is our deliberate opinion that the unsatisfactory final recitations and consequent failures in examinations so injurious to the interests of this establishment are to be attributed, in a great measure, to the nervous derangement caused by the common use of tobacco by the students. It becomes our duty to recommend some stringent measures to correct this practice."

Maria F. Starr, principal of High Street school, New London, Conn., says: "I have been a teacher twenty years. In boys addicted to the tobacco habit, I find nervous irritability and inability to do the work that properly belongs to boys of their age. Where the habit has been abandoned, I have found a marked improvement, both mentally and physically."

In Kansas College, fifty smokers averaged 62 per cent and fifty non-smokers 79 per cent.

W. L. Bodine, Superintendent of Compulsory Education in Chicago, reports that he sent 1,015 boys to the Chicago Parental School. Eighty per cent of these were cigarette smokers. Many boys twelve and thirteen years of age were in the first, second or third grade.

From eighty-eight schools in Chicago, 2,402 pupils were reported as addicted to the cigarette habit. Only 6 per cent of these were able to do the school work of their grade.

Ninety-eight students were recently dropped from the roll of Leland Stanford for poor scholarship. Every one of them had the cigarette habit.

Such are the effects of tobacco on the school boy's body and mind. Now, let us hear of its effect on his character. Wanamaker says: "The cigarette is the starting point in the downfall of thousands."

Dr. Harris says: "Tobacco saps all the foundations of manliness and virtue, paves the way to every vice and tends directly and powerfully to the grossest immorality."

The late Harriman once said: "Officials might as well go to a lunatic asylum for their employes as to hire cigarette smokers."

Thomas A. Edison says: "We've either got to have anti-cigarette laws or more asylums for juvenile degenerates. The people will have to decide which."

Judge Stubbs of Indianapolis, says: "Manliness can be aroused in most boys no matter what the offense of which they have been guilty, if only they are not cigarette fiends. When a boy becomes addicted to the use of cigarette, the disease is in his blood and brain; his moral fibre is gone; he is apathetic, listless and indifferent in school."

Dr. Marden of "Success," says: "The whole tendency of the cigarette nicotine poison in the youth is to arrest development. It is fatal to all normal functions. It blights both health and morals. It not only ruins the faculties but it unbalances the mind. Many of the most pitiful cases in our asylums are cigarette fiends. It creates abnormal appetites and an almost irresistible inclination to crime. The habitual truant is almost invariably addicted to the use of cigarettes. Truancy is the cradle of crime. A box of cigarettes and a five-cent library can easily make a truant and such a truant, poisoned in mind and body, is the future enemy of society."

Another reason for combatting the tobacco habit is the fact that it is the starting point to worse habits. It paves the way to cocaine, alcohol, morphine and opium. Horace Greeley said: "Show me a drunkard who does not use tobacco and I will show you a white blackbird."

A further cause for alarm is that the use of cigarettes is on the increase according to government statistics. Dr. David Paulson, superintendent of Hinsdale Sanitarium, said in an address before the teachers of Cook county, Illinois: "We're going to have a tremendous awakening as to the evils of cigarette smoking. We are only just rounding out the first generation of cigarette smokers, but give us another generation or two descending from the present and the results will be appalling. No sane man offers an apology for cigarette smoking except the man who makes them. The superintendent of the Pontiac Reformatory told me that 90 per cent of the boys sent to that institution were cigarette fiends."

Now, is there a remedy for this great and growing habit? Yes. There is a cure for this evil, as well as every other, but the writer may not prescribe the most efficacious.

Many forces are at work seeking to curtail the use of tobacco. The church, the school, the Y. M. C. A., the W. C. T. U., the total abstinence societies, and anti-cigarette clubs are waging continual warfare on this common vice.

The superintendent of a school for incorrigibles in an eastern state declares that in many cases the desire for cigarettes can be removed simply by building up the state of health.

Superintendent S. E. Raines, of Freeport, Illinois, found that 18 per cent of the boys in the grades and 27 per cent of those in the high school smoked cigarettes. He invited the parents to mass meetings where able speakers addressed them on the evils of smoking. These were followed up by mass meetings of pupils. Then an anti-cigarette league was formed and the members wore badges. As a result of this crusade, they have scarcely any cigarette smokers in the school.

Very often boys have been persuaded to break the habit. A heart-to-heart talk and a sympathetic interest are often a sufficient help, but this requires a degree of tact and persuasive skill that too many people lack.

Yes, there are remedies, but there is something much better than a remedy and that is prevention, an ounce of which is said to be "better than a pound of cure."

This duty must devolve upon those who train the boy—parents and teachers. Being the daily companion of young people, the teacher should be a safe example for the youth. His conduct and character should be above reproach and his life pure and wholesome.

Then the teacher's first duty in this matter is to be a total abstainer. If he does not know the evil effects of tobacco, or if his will is so weak that he is a slave to this habit, he is not well qualified to "lead the child in the way he should go."

Our school laws require the teacher to instruct her pupils in the effects of tobacco and liquor on the human system. Will the boy in her class accept her statements, if he knows that the superintendent smokes? Is that superintendent a faithful servant of the state, if he, through his conduct, diminishes the remedial effects of a good law? Is he true to his duties, if, instead of aiding his corps of teachers and reinforcing their efforts, he nullifies their teachings?

The superintendent who uses tobacco "gags" not only his assistants but also the parents. A man living in Minnesota learned that his boy smoked. He reasoned with him for a long time only to be floored by his son's reply: "Well, father, there may be something in what you say, but Superintendent C. of the city school, smokes every day; I guess he don't think it is very bad."

The writer recalls the name of a so-called teacher who smoked cigarettes in the school. "Shocking," you say. Yes, it is. But is it so very much worse than when a professor, or a superintendent, enters the class room and pollutes the air with the sickening smell of tobacco?

The Good Book says: "It is imposisble but that offense will come; but woe unto him through whom they come. It were better for him that a millstone were hanged about his neck and be cast into the sea than that he should offend one of these little ones."

In addition to setting the right example and creating public opinion against the tobacco habit, the teacher should aid in enforcing such salutary laws as those prohibiting the sale of tobacco to minors, and the entrance of minors and students into pool rooms, and boys' smoking in public places, and the curfew ordinances.

Let us, then, not grow "weary in well-doing," but guard our precious charges from every evil influence. Let us not be stumbling blocks for their tender feet, but let us send them forth into the arena of life with strong bodies and keen minds and especially with right ideals and sterling characters. To render this noble service for the love of our nation and our fellow men is, indeed, worthy of our highest ambition, for it certainly calls forth and develops thoughtfulness, tact and self-control, kindness, perseverance and courage. These are all manly qualities and we are not men, unless we manifest them in unselfish service.

THE RELATIVE VALUE OF HIGH SCHOOL STUDIES—HOW SHALL THEY BE DETERMINED?

SUPT. P.¹ S. BERG, DICKINSON.

In entering up a discussion of this subject I am well aware that I am considering a subject that has received much attention from able minds, one whose various phases have been presented to the public eye time and again. To me it is not discouraging to know the difficulty of reaching definite, well-accepted statements regarding questions coming up in our work as teachers. The wisdom of yesterday may not seem wise in the light of today. The theory that seems logically and professionally sound, may fail, from almost numberless causes, when brought to practical test in the school room. I am proud to belong to a body of workers whose theories and practices under them, are undergoing such constant changes; for such changes are indicative of life, progression, uplift.

The changing conditions—social, industrial, ethical—make new standards constantly necessary. The curriculum must be readjusted frequently to meet the needs arising from these changed conditions. As in surveying north or south toward the pole, it is necessary now and then to run a new base line, so it is necessary in outlining high school work to run new base lines occasionally.

The high school has an aim, a purpose, for which it is maintained. As this aim changes from generation to generation, not in the largest sense but in its immediate rather than in its ultimate aims, the relative values of different school studies need to be redetermined.

There is a pretty general consensus of opinion among educators as to the study groups that should be represented in the course or courses of study for secondary schools, but the proper subordination of branches under these co-ordinate study groups is a question that brings forth much discussion and sometimes shows a wide divergence of views.

Local conditions and the future work of the pupils have much to do in determining the relative value of studies in a high school course. A subject that may be of great value to one pupil may be of little value to another. Children are not alike and we have no reason to believe the Almighty intended they should be alike. Who can give any good reason why we should labor to produce uniformity of taste, uniformity of character, uniformity of ability or uniformity of aspirations? Biography teaches that those only have become distinguished who have developed a love for work on particular lines. Since life's success depends in so great a degree on the fortunate finding of what the pupil is best fitted to do, no pains should be spared in finding the right direction and in securing a system which will make possible the turning of the young feet towards the proper path. For a pupil to leave the high school with no definite plan concerning his life's work is a great misfortune.

Sameness is not stamped upon any two of the divine creations. In nature no two germs are alike, and the influence of shade, sun and soil

in their development are unlike. In the one case the violet sweet, in the other the stalwart oak, each performing its own, but neither the other's functions. When one comes to the highest creation, man, the manipulation of nature, fashioned in the image of his Creator, we neglect this principle of infinite diversity and act as if there were some fixed intellectual diet that all our young people needed in order to insure full fruitage of divinely implanted germs, notwithstanding the fact that the world groans beneath the burden of professional and business failures, the result of misguidance in the preparation for life.

Education should always recognize the fitness of different minds for different work. Prof. Paulson, of Berlin, has testified that the ideal in education is vigor and originality, not equality, nor that uniformity which disregards the demands of nature.

Only that knowledge which is assimilated becomes real education. In the unfolding of the mental powers there must be garnered the largest possible amount of useful potential knowledge, which may be applied in the conduct of every business, in the success of every profession, in the amelioration of humanity, in the development of civilization, and in the blossoming of those graces which are the crown of true citizenship in the government of a people.

Two hundred years ago Comenius said: "The attempt to compel nature into a course into which she is not inclined is to quarrel with nature, and is fruitless striving. Since the teacher is the servant, not the master or the reconstructor of nature, let him not drive forcibly when he sees the child attempting that for which he has no skill. Let every one unhindered proceed with that to which, in accordance with the will of heaven, his natural inclination attracts him, and he will later be enabled to serve God and humanity." Pud'n Head Wilson proved that no two thumb marks were alike and in this statement Mark Twain strikes the keynote of modern educational philosophy.

Primarily then the value of any study is determined by the nature and capacities of the student, and it is the teacher's duty to help the student to choose the work that will best fit him to develop the potentialities within him and make him the best possible member of society. The relative value of high school studies is further determined by the character and the equipment of the teacher. I wish to express my own conviction that it matters little how good our methods are, how perfect our administration, how unimpeachable our curriculum, if we have not first-class men and women devoting themselves to the work of teaching, our work is dead. The chief factor in public education is the teacher. Like teacher, like school. No matter how costly the buildings, the furniture and the apparatus, and little matter how excellent the text books, and how wisely arranged the courses of study, the schools will be just what the teachers make them. Good teachers make good schools, and poor teachers poor schools. The Socratic method is worth very little without a Socrates in the chair. Mr. Emerson replying to his daughter's inquiries as to what studies she should take, said, "I care little what studies you pursue: I am far more concerned to know with whom you study." The want of

well qualified teachers is the weak place in our system of public instruction. The majority of teachers are doing business with insufficient capital, and they are ever on the verge of bankruptcy. Less money in mortar and more in teaching would go to the credit of our intelligence and greatly to the advantage of our rising generation. Many communities display commendable liberality in provision for the externals of education; but much of it is waste because of niggardliness in that which is more essential.

However, the implication that the choice of studies in secondary schools may be a matter of comparative indifference, provided good training is obtained from the subjects chosen, is open to criticism. This view makes education formal without giving due regard to content. Mere form, mere power, without content, mean nothing. Power is power through knowledge. The present is understood, not by the power to read history, but by what history contains. The laws of nature and deductions therefrom are not made available by mere power, but by the power that comes from a knowledge of them.

In an ideal course of general training, can there be an equivalence of studies? As well ask whether one sense can do the work of another sense in revealing the world to the mind. To be sure, the fundamental conceptions of the material world can be obtained through the sense of touch alone; but we also attach importance to the revelations of sight and hearing; and these revelations have a different quality. He who lacks these other senses is defective in sources of soul development. So he who neglects important fields of knowledge lacks something that is peculiar to them.

I propose for brief consideration seven groups of studies. These should furnish material for all kinds of boys and girls and for all classes of secondary schools in North Dakota.

There can be very little doubt that, as the poet says, the proper study of mankind is man. It is man who is of perennial interest to us, because we are men. Nay, more; it is only as we realize the literature, the life and the institutions of the men who have preceded us that we ourselves actualize our capacities of manhood, and become, in very truth, men.

Consequently, humanistic studies must always have the highest place in the program of the secondary schools. Today with the wealth of English literature behind us, and all modern literature behind us, it is necessary to broaden our conception. And when I speak of humanistic studies I place first the study of our language and literature. Of all subjects, literature should clearly have first place. Literature should have a continuous and permanent place in every course of study. Not an affected gossip and chatter about authors and books, but, as John Morley puts it, a sincere and living interest in the thoughts, the feelings, the moods, the ideas, the principles, which it is the business of literature to build up in our minds and characters.

Whether or not a high school pupil is to go beyond the high school to college, university, technical or professional school, there is one kind of training he needs in common with all his fellows, and that is training

to express himself, his own thoughts, desires and ideals to those around him. The student should learn how to write good English—clear, accurate and straightforward. He should read enough good English to know it when it is written. He should study poetry enough to know what it is about, and if he is to do any memorizing, there is nothing that enriches the mind so much as the memory of good verse. The writing of good English is the most important tool of the man who possesses it. It is wanted in every profession, in every walk of life. The high school course of every one who acquires it must be judged successful. If he is to enter business life the power of clear and lucid diction will have a moneyed value; social prestige demands ability to use the vernacular graciously and gracefully; in brief, there is no department of human activity that does not call for the continual exercise of the art of self-expression. The main object of English should be to train young people in correct, natural, straightforward self-expression. They are, to be sure, using their mother tongue in all or most of their other studies, and to a certain extent are learning, in connection with all of these, facility in its use. But in them they touch only one side of expression, the non-creative or impersonal side. If good self-expression is made the aim in English it will have the highest value in the list of high school subjects.

The languages, ancient and modern, have a high value to those who can master and use them, for every new language opens to a person a new world, and the influence of a new civilization. Most high school students get little from any of them, and the one intellectually most important, the Greek, is practically excluded from our secondary schools as being of least practical value. Without in the least under-rating the value of Latin to "Roman-minded men," who make a manly use of it, there is no doubt that the average American high school boy gets out of Latin less than out of any other subject in the curriculum. We may regret this but we must face it as a fact.

In some quarters Latin is still widely studied. Those who hope and wish to teach, find it next to Algebra the safest investment, and it is the best students who hope to teach. It is one of the cheap subjects to teach. It is not only cheap but an easy subject, especially as compared to science, to teach. In few branches does a little knowledge go so far with the teacher, and in few can it be used in such an imposing way to drill and break in boys on a small capital of knowledge on the teacher's part. Stanley Hall says that the superstitious reverence of Latin has an illustration in the autobiography of Booker Washington, who says that during the reconstruction period from 1867 to 1868, the colored people had two crazes—"to know Latin and to hold office." "It was felt," he added "that a knowledge, however little, of Latin, would make one a very superior human being, bordering almost on the supernatural," and he conceives a large part of his own mission among his race to be the overcoming of these two passions.

There's a deal of conventional clap-trap concerning the ancient languages. Two hundred years ago the whole world's literature was, fairly speaking, locked up hard and fast in these languages. You could have read

all the books printed in English in the evenings of one winter. But Pope translated Homer. Other ancient authors followed illuminative suit. Today every Greek or Latin line worth reading any many that are not are laid down in finest English. Likewise in much better English than the ordinary translating scholar would be capable of.

The studies which most vitally model one's conduct as a citizen, making him more intelligent and appreciative as a member of the state, and giving him a tendency and power to promote the interests of the community, and so of himself, the studies suited especially to accomplish this end are those treating of the relationships of human beings in society, namely, history, civics and economics. This group of studies should be pursued by every student in his high school course, in order that he may not only acquire keenness of perception and reason regarding social relationships, but that particularly he may develop an interest in the life of the community, so that he may take a part in its affairs and contribute in an effective manner to its prosperity. History is seen to be essential in order to give the student a body of knowledge relating to the condition under which societies have existed in the past, with the outcome of various modes of conduct, the stability of different kinds of government and the like. In his judgment in the present he is guided by the experiences of the past; he sees the effect of altruistic as compared with selfish conduct on the part of individuals; and under right conditions of teaching, wherein these things are made real and living by tracing the applications to the student's daily life, such knowledge will arouse feelings which must impel him in the direction of higher social living. History as oft-times taught is nothing but bones, to which vital tissue must be added to have a living thing.

We are still training in our schools young barbarians by barbarian methods; and we turn them out half-socialized and expect them to be model citizens. We wonder why it is that education fails to free us from crime but develops among the educated frequently only more adroit and subtle forms of anti-social action; why is it that we are now troubled, not with the highwayman and vulgar thief, but with the cultured free-booter and grafter of modern professional and business life. The whole end and aim of our educational system should be to produce, not lawyers, doctors, engineers, farmers, but citizens who will put the public weal above private gain, and who will act as fearless leaders of the masses out of ignorance, prejudice and gross materialism into culture, character and idealism.

The study of these subjects will help to lessen materialism, for they will throw the emphasis on the relations of man to one another rather than on the relations of man to nature. It seems that in a large measure our whole educational system has been prostituted to the commercial spirit of the age. In the Emersonian period young men were exhorted to hitch their wagon to a star; now they are told rather to heap it high with wheat, flax and potatoes. The stress of education at present is thrown on material achievement, and it is no wonder we are becoming a nation of materialists. The needed correction for all this, in an educa-

tional way, is to be found in the study of these subjects. They aim at the conquest of man over himself, at the control of social conditions and social progress. They emphasize the higher life of man, the relation of men to one another; and they set before the students as their goal, not material achievement or individual success, but the service of man.

Manual training of some sort ought to form some part of every well-balanced course. Training of the hand is really training of the brain. This is a motor world we live in—a world in which men do things. We of America are pre-eminently a motor people. We do things. What can I do with it, is the first interest of every child. And to do things with the hand is of greater value as mental training than the disentanglement of phrases and complex sentences or the memorizing of lists of irregular verbs. The development of manual training of some sort, domestic science is included, for all boys and girls, will represent the greatest immediate forward step in secondary education. The educational value of this work is generally admitted; the beneficent influence on the character of the normal boy of making something or being able to do something useful, is unquestioned. Accuracy and honesty are probably more farcibly impressed in this work than in any other school exercise; his work is a constant reminder of any inaccuracies and at any attempt at dishonesty. In all of this work there is opportunity as in no other laboratory for the cultivation of judgment. The practical value need not be defended; it is settled that it shortens very materially the time necessary for learning a trade; the student is familiar with tools and deft in their use. The victories of the next century will be industrial victories, and the people that neglects this branch of education, before another hundred years roll around, will be as poor, weak and useless as the Spaniards.

All the groups of studies mentioned so far represent work—mental effort—but the industrial group represents work which is a combination of mental and muscular effort, joined for the production of material utility. No amount of athletics has the effect on character that is exerted by intelligent, productive labor. One reason why farm-bred boys familiar with mechanics have made much of their school opportunities, is that the industrial factor has been active in their education. One reason why town students of capable parentage and of excellent scholastic attainments often appear to lack faculty is that they have not engaged in productive labor. Far from labor being a curse, it would seem that a stability, power of will and practical understanding of society can hardly be had in any other way than that of useful bodily toil.

Courses in food values, chemistry of foods, theory of cooking, household sanitation, general household economy, practice work in cooking all kinds of meats, making breads, desserts, and ices, the methods of manufacturing and testing of pure fabrics, drafting and hand and machine sewing, have a place in a well-planned high school curriculum. The laboratory practice in cooking under a good instructor will develop a discriminating judgment much more rapidly than either physics or chemistry. Its practical value cannot be questioned, and its introduction into the schools will result in a few years in an increase in the number of economically administered and well-managed homes.

We are beginning to feel that a broad and generous culture along general lines should form the basis of a business course, that the culture of the man should take precedence over the culture of the business man, and this, if I mistake not, is the idea as the basis of our commercial courses in the high schools. The practical view is not the utilitarian view; it involves culture; modern business training should give fineness of thought, unknown to earlier business education, which will check much of the business evil of today.

Commercial arithmetic, spelling, penmanship, commercial geography, commercial English and correspondence, and commercial law have no place in a high school course. Had I time I should like to tell you why they have no place.

The essentials of any commercial course, so far as pure commercial subjects are concerned, are shorthand, typewriting and bookkeeping, the only subjects that should formally appear as commercial branches in the high school. Cut the other out and quickly and thereby strengthen the work of the high school. The high schools have borrowed their commercial course from the business college and the so-called business college, very different institutions from the high schools, and the reason for the borrowing is that the public school system has made no provision for the training of teachers in commercial branches. Really if the public schools, normal schools and colleges did their duty and made provision for teaching these subjects and training teachers to teach these subjects there would be no need of commercial colleges.

I will further say that in teaching commercial subjects unless you can have a teacher who knows how books are kept in the best mercantile establishments, and who thoroughly teaches shorthand and typewriting, you had better leave these subjects out, as there are better disciplinary studies than antiquated bookkeeping and shorthand. Well taught, these subjects have educational value as well as practically fitting the pupil for the counting room.

Agriculture, including the subjects offered and taught under this title, is emerging from its crude state as an accident of life and is beginning to make itself a science, as broad, as worthy of the best thought, as stimulating to investigation, as inspiring as any science, while on the aesthetic side it presents charms which give it a unique place among the sciences. It offers varied study from simple nature study in the grades to the technical and cultural work possible in the high school. It suggests the study of forms and processes, the development of new species, the cultivation of public spirit in relating agriculture more fully to public and private life. It offers literary inspiration. Idyls of country life are waiting to be written. With all this the study of agriculture broadens thought and gives opportunity for genuine culture.

Algebra and geometry have a high practical as well as definite intellectual value. These subjects constitute, moreover, the only door to the profession of engineering. One year of algebra and one year of plane geometry should be required of all students who graduate from high school. I know that some objection will be made to this, but from my observation

and experience nothing can be substituted for it which will give students equivalent power for the time expended. I frankly admit that some of that value comes from its being better taught than many other subjects. This is especially true of algebra. In passing it might be stated that mathematics and Latin are the best taught subjects in our high school today. If some one were to ask, what is the practical value of training in algebra and geometry? A fair answer would be as follows: These subjects are indispensable to the student of certain branches of pure and applied science, e. g., physics and engineering, since they are necessary to calculation, but for other persons they have or no direct practical utility. Rarely need one to have specific recourse to x 's and y 's or the line AB to solve a concrete problem of life. If the questioner persisted, why then, since only a few pupils will enter the regions where algebraic formulas and geometrical diagrams flourish, should we spend so much time on them in our schools? The reply would be that while their direct utility is inconsiderable, their indirect utility is important. Just how does this indirect utility accomplish itself? Simply stated, by forming habits of precision and systematization. In fact algebra and geometry are in many respects the best training ground for the formation of these habits. By precision is meant careful attention to details. At first thought any alleged connection between plus and minus signs, coefficients, exponents, and on the other hand the constituents of language, literature and inexact science, may seem largely fictitious; and hence an assertion that precision in the former inculcates precision in the latter, may appear incorrect. Physiologically the mechanism of perception is rendered more accurate by exercise, and psychologically the practice of dwelling on a particular until its subsumption under a general rule guarantees its reliability, develops a most useful habit of study. There is a natural tendency in following a course of reasoning to pass hastily over a step which seems probable or vaguely familiar, although a moment of deliberation may reveal a serious logical defect or omission. So in geometry a pupil will glibly refer to this or that theorem without really considering whether the given construction satisfies the necessary conditions. Hence, by enforcing precision in such cases the teacher will foster a self-critical habit of thought that will be universally beneficial in study. Hasty and unclear thinking may thus be made to stamp itself as uncertain and unsatisfactory. There is here an opportunity for training in intellectual honesty which is likely to be of profound ethical importance in later development. The study of algebra and geometry also form habits of systematization. By this is meant the mental habit of arranging details as parts of a whole. The value of such a habit of study is exceedingly great. Facts are much more easily remembered as parts of a system than as isolated facts. This is the art of associative memory in its most perfect form. An algebraic exercise or problem, or a geometrical demonstration, is in itself a small system, an essential feature of which is orderliness, proper arrangement of parts as necessary to success.

We may ascribe the greatest strides of the last two and a half centuries to the invention of mechanical arts and appliances and the application of mathematical principles to the systematizing of natural phenomena.

Next to English in importance and value are the sciences. In my judgment with the average student and especially the average young man, some study of natural science ought to go with every year in the school. The child is surrounded by a world of actualities, each producing a definite effect on his senses. In an out-of-door world he recognizes that external things are real. He knows that the sun rises in the east, and he soon learns the various phases of fieldcraft and how to comport himself in the presence of realities. The constancy in these relations gives him a kind of moral training, and the knowledge he obtains he wins at first hand. It is acquired in terms of his own experience, and in such terms all real and helpful knowledge must always be stated.

In our towns and cities we cannot replace the training of the farm, the knowledge of the prairies, hills, streams and lakes, but we can continue to give in some degree the essential part of it—contact with realities and extension of knowledge in terms of experience. This is through real contact with animals, plants, rocks, chemical compounds and physical instruments. A well-conducted scientific laboratory has the same value as out-of-doors experience, with the great addition that it can be made systematic and, therefore, effective for power.

As to the relative value of the sciences, that is a minor question. Those sciences are best which give largest play for observation and judgment. Those sciences are best which can be taught best, with most accuracy, and with most enthusiasm. In general it is better to teach two sciences well than four imperfectly, and the reason for teaching any science is its helpfulness to the mind, as well as the fact that there may be money in knowing it. But to have any value at all the sciences we teach must deal with realities, not book science. "If you study nature in books when you go out of doors you can not find her."

In a general way I have tried to give the relative values of the studies that should have a place in a high school curriculum in our state. I have in a way told how these values may be determined, but not absolutely. That is impossible. So many factors enter in determining values, and these factors differ with different individuals that no fixed rule can be laid down for their determination.

Let me say in conclusion that the curriculum of the high schools should not embrace everything. I am convinced we are not called to make our children machines. Sidney Smith said of Dr. Whewell that science was his forte and omniscience his foible. I sometimes think that when I hear discussions of what ought to be in the curriculum of the secondary school, and what children ought to be taught that these persons suppose it quite easy in the course of ten or twelve years for children to learn practically everything. If these critics had their own way children's minds would be a perfect medley of facts. I for one am willing that my children know nothing about a great many subjects, and that their father is absolutely ignorant of by far the larger part of human knowledge. What is more, it does not pain me. It is not a practical inconvenience.

The high school ought to limit the range of its activities so as not to do too much at the expense of thoroughness. It ought to broaden its

range so as to give each boy or girl what is individually best, and it ought to keep in touch with realities, with the power of doing things, and it ought to cherish as its choicest art the cultivation of the power of clear, accurate expression in the greatest of all languages, which is our own.

PROPER RELATION OF HIGH SCHOOL TEACHERS TOWARD
HIGH SCHOOL SOCIAL FUNCTIONS.

MISS DOROTHY M. POPPY, MINOT.

The subject for our present consideration has been so generally discussed in our national, state and county associations, that there is a strong fear that nothing new and very little that is even practical and helpful can be suggested. Notwithstanding the oldness of the theme there are perhaps few phases of high school life which have given boards of education, superintendents, high school faculties and parents more anxious consideration than those pertaining to the social life of the boys and girls of the secondary schools.

So universal is the tendency and so characteristic the inclination to measure everything by the standard of its future worth that even our intellectual attainment are prized not so much because of present enjoyment and usefulness, as for what they may mean in strength, influence, pleasure and financial gain. Hence, all admit that our school system is maintained not so much on behalf of the boys and girls of today as the men and women of the future. Although our young people may think that they are merely passing their time between daylight and darkness yet they are really building the castle for their souls tomorrow. Prof. Scott of the Boston Normal School says: "The school must prepare the children to live the best possible lives both for themselves and others in the world which they are to enter. To be really effective it is forced to idealize the present activities and prepare the young for a future world which exists only in the minds and hearts of the community."

If we as educators are preparing then both for what now is and what is to be, we should carefully consider what phase of life counts for most. Are not all the important needs and aspirations of man revealed to him through his associations with others? Without his fellow, as Aristotle said, man would be either a god or a brute. So from its very nature the school is a social body which is preparing its pupils to take their places in a larger social body, the state and society. Consequently, social life in the high school is a necessity which we could not do away with, if we would; and let us agree that we would not if we could.

Along with this tendency, necessary and desirable as it is, are there any pit-falls to avoid? There certainly are and the most alluring and dangerous one is under the glistening covering, high school fraternities and secret organizations. Our subject admits of simply a thought on this topic.

All that civilization has reached, which receives universal assent, contains the elements of democracy and altruism. The secret fraternity is wholly subversive of both. Whether we look at it from the standpoint of Christianity, philosophy or sociology, it is out of harmony with those principles and laws of being which are universally accepted as fundamental. The application of these principles becomes especially mandatory in the public

schools, which are essentially democratic. It seems to us, that it becomes our duty as school men and women, first to see that no legitimate cause or excuse for the existence of these fraternities remains in our schools—to see that their legitimate elements be supplied to the pupils through the school at large; and no less to see that these undemocratic, disintegrating forms of the organizing tendency be courageously and manfully resisted.

To supplant sororities and fraternities let various athletic, literary, debating, musical and art clubs be organized; let small receptions and parties be given in which the entire school, if not too large, the faculty and parents too, participate.

Life is made up of extremes. Our natures are capable of loving and hating; we laugh and we weep; there is joy and there is pain; so with young people there is application and relaxation. So surely as we require the former so certainly will the latter follow; and it is for teachers and parents to recognize this truth and to direct this inclination.

The already crowded hours and heavy responsibilities of teachers often cause us to stand aloof from the social pleasures of the pupils and as a result the young people must rely wholly on themselves, their homes, or the churches to care for this side of their natures. A large majority are so situated that the two latter give them nothing in the way of higher social privileges; and furthermore, the enjoyments under the control of the boys and girls alone are often questionable as to time, frequency, place and nature.

The other extreme is for the faculty to maintain complete management and control of all such functions. To this method three main objections can be raised: First, the overtaxing of the teachers; secondly, the heaping upon themselves of adverse criticism because of the various opinions as to the proper form and nature of such meetings; thirdly, the withholding from the pupils themselves an opportunity for present activity and growth.

We are fully convinced that the general tendency is for the parents and the teachers to disregard the strong link which should so closely weld together the two time honored institutions, the home and the school. Too often and too loudly is the cry raised that the teacher shall be and is "in loco parentis" and the school "in loco domus." The safe and masterful piloting of our young people requires the loving heart, the trained mind, the guiding hand and the far-seeing eye of both teacher and parent; and the deep and abiding influence of both school and home. Development and interest are the boon companions of co-operation; hence, we believe that the best and most gratifying results will be realized when parents, teachers and pupils work in harmony and unison.

In order to learn more fully the sentiments of the parents and to urge more strongly the need of union, in Minot, a circular letter has been sent to the various homes, asking such questions as the following: Should our high school favor social functions? If so, of what nature should they be; where, when and how often should they be held? Ought not parents, and would you as such, be willing to be present and to participate?

To note the replies has been most interesting. To the sixty-five letters mailed answers to less than thirty have been received. With few exceptions, the parents believe that there should be social gatherings and by far the larger number agree that such functions should be under the guidance, at least, of persons of experience. A few suggest a committee consisting of representatives of the board, teachers, parents and pupils; but to our surprise some believe in putting this most important factor of school life wholly under the management of the pupils themselves. The almost universal sympathy with the idea of parents being participants is most gratifying. But one or two are of the opinion that the children see enough of the parents at home; on the other hand, nineteen to twenty say that parents, as a rule, have not enough of association with their children; for to know a child a parent must study it at home and abroad. We would add that the same is equally true in regard to the child knowing the parent.

The University High School of Chicago has doubtless worked out a social system far in advance of many of our secondary schools. Through all the various clubs, already recommended, the faculty often finds it possible to turn the social instincts of the pupil in directions which promote his physical, intellectual and aesthetic development. Club houses for the boys and the girls have been provided. On Friday afternoons from three to four-thirty in the gymnasium parties are given for the sole purpose of the boys and girls enjoying one another's society. Teachers and parents are present and participate and, standing in line, receive the formal good-nights of the pupils. Mr. Franklin Winslow Johnson of the school writes: "These parties are largely attended, are evidently greatly enjoyed, and are marked by naturalness in the relations of the boys and girls toward each other. The period since these functions have been held has witnessed a constant diminution in the silliness which is supposed to accompany the relations of boys and girls at this age and a corresponding increase in natural and unaffected conduct in the presence of each other." At the end of the autumn and winter quarters two of these parties are made special occasions, one for the two lower, and the other for the two upper classes. At these the parents' association provides favors, refreshments, and special music. Again toward the close of the year, another party is given to the whole school under the same auspices, which is the only one of the year held in the evening.

Through the various committees and individuals the parents are brought into very close contact with the social life of the school; and it is easily understood that no such elaborate social organization could be conducted successfully without the intelligent and substantial co-operation of them and the pupils.

The same general plan of Friday afternoon gatherings and evening parties with parents attending has been successfully tried in various other schools throughout the west.

As members of high school faculties we believe that we can with propriety and telling effect encourage the opening of the homes and the constructing of school auditoriums and gymnasias; all of which if properly furnished, equipped and managed, will greatly aid in eradicating many evils which are now undermining our most strenuous efforts.

We are all too much imbued with the American idea; that without gain there is no need of effort, to be willing to give of our time and energy to school society if an abundant and rich harvest is not the result. So the next point to be considered is the fruit of our labors. First, in regard to the pupils. Relaxation from arduous tasks is afforded, ease of manner and self-assurance are acquired and many social customs are learned; the active, dominating, personal influence of noble men and women is realized in a way that it cannot be in the class room.

Secondly, the school at large will cease to be simply a place where lessons are learned and recited, but will be converted into an institution which aims at physical improvement, intellectual attainment and life preparation.

Thirdly, the teachers themselves will be seen and appreciated by their students in a happier and different light; and, in turn, will learn the boys and girls as they have not known them before. Hearty participation in the social functions will aid greatly in retaining their youthful vigor, in driving away the wrinkles of care, and in keeping in sympathy and touch with young people.

Fourthly, if the conditions, ideal as we see them, should exist, the pool rooms and gambling dens would be empty of their high school contingent, the amusements judiciously guarded and skillfully managed, the earnest desires of the parent more fully realized, the responsibilities of home and school more equally shared, and pleasant associations, now only imagined, then realized and enjoyed.

The ideas then upon which we would lay special stress are: The child is a social being and must be recognized as such, especially during the adolescent or storm and stress period of his existence; that it is the duty of instructors to direct, not to check this side of his nature; that both the school and the home be made more of a social center; lastly, that the sympathy and assistance of the parents be more generally aroused and more fully appreciated.

THE HIGH SCHOOL AND PHYSICAL EDUCATION.

SUPT. H. L. ROCKWOOD, ENDERLIN.

Ladies and Gentlemen: Of all the questions facing the high school today, that of physical education is certainly not of least importance. When President Stearns of Amherst introduced athletics into his school, he did so because he saw the great need of physical training. So long as his original plan was followed Amherst led all the colleges in average physical development and training. From this we have the modern intercollegiate team contests. These have proven to be not only a disease but a dangerous, and what is worse, a contagious one. It has spread until now the secondary schools are dangerously bound by its magnetic championship charms. We cannot nor will we argue that athletics are not beneficial.

G. Stanley Halls says that "Few realize how impossible healthful energy of the will is without strong muscles which are its origin, or how endurance and self-control, no less than great achievement, depend on muscle habits." Dr. Maclaren says, after many years of inquiry of the men of the Cambridge and Oxford crews that the benefits from their training which the men made the most of, were "increase of stamina, of energy, enterprise and executive power, and of fortitude in endurance of trial, privations and disappointments—all distinctly volitional gains." These are equally applicable to our high school athletics.

There is scarcely any end to the argument that can be advanced in favor of athletics even as carried on today. In fact so completely are we overcome by this argument that often times the objections are forgotten.

While not expressing his views exactly, yet the writer desires to quote from the report of a committee appointed to investigate the question of athletics between the two high schools of Indianapolis and also with schools outside the city:

"It seems to us that no one would question the value of well regulated physical training, and also it seems that no thoughtful person would fail to see the evils inherent in the prevailing type of school athletics.

The defects of the present system may be roughly classified under three heads: (a) From the pedagogical point of view; (b) from the physical side; (c) from the ethical standpoint.

Under (a) may be presented:

1. The value of athletics as at present in vogue is disproportionate to the cost in time of players and of teachers who supervise them.
2. The burden of managing the finances is too great.
3. There is too much tension developed among the pupils in general before a decisive game, which results in inefficiency in studies.

Under (b), the physical side, may be included:

1. Too few of the boys are actively engaged in athletics. General interest is centered in developing a team that will win.
2. Those boys who do take an active part in athletics are the ones who least need physical culture.

3. At present there is danger of serious injury to players particularly in football, through the efforts of a rival team to cripple a good player in order to weaken his team that they may win.

4. High school boys will not train properly and are frequently injured permanently by over strain.

5. When trained at his best the boys of high school age is too immature physically for some of the games as played at present.

Under (c), the ethical standpoint:

1. Athletics should develop games not contests.

2. At present teams compete with other teams over whose physical and ethical status we have no control.

3. Games as now played tend to create bad feeling between schools. Sport for sport's sake is replaced by the spirit of contest, and where large numbers are concerned the mob spirit may arise.

4. There is at present a tendency to estimate the quality of a school by athletic contests won.

5. The character of a portion of the following of athletic contests is of so low a type that it tends to demoralize the game. While this sort of following is small in numbers its influence is unduly great, and is practically outside the control of school authorities.

6. The public generally looks on a winning team as a successful team; hence the coach is tempted to introduce questionable practices to develop a team which will win at any cost.

7. The hero-worship accorded the prominent athlete by pupils, press and public tends to give him an altogether false notion of his own real importance.

8. The earnings of the games constitute a temptation toward commercialism in sport.

Valid objections and timely are these. But as suggested above they do not exactly express the writer's opinion for he believes in athletics and in well regulated and controlled inter-high school contests of all kinds. He believes that the advantages are far in excess of the costs. The benefits of the present system do come to the few especially in the larger schools. At Enderlin so far this year we have enrolled but twenty-two boys. It is necessary for us to muster practically every one into service. We, therefore, have physical training for all. We see the benefits but we also see the dangers. It is becoming a business, in fact a duty and not a play. As soon as a thing becomes a duty it loses a large per cent of its attraction for the young people. When the game itself loses its attraction then there must be something else to drive or drag them into it. With this condition and the difficulty encountered in getting games, it has come to be, as one person put it, "a good deal like dragging a cat by the tail to make things go." Since ours is only one of several small schools others must have experienced the same difficulty. The temptation to drop athletics often arises and there are times when we feel like yielding. However, our knowledge of its benefits and a desire to be helpful always has come to the rescue and again we put our shoulder to the wheel and strive forward with the thankless task.

While inter-high school contests may have a tendency to develop the few, to create a few stars, in fact it may be called specialization rather than general training, while these things may be true, there can be no doubt that great benefits are to be derived and that as school men and women we are under obligation to not only tolerate but encourage. One thing certain, however, we must *control* them. Since this phase of the subject is to be discussed later on the program we will pass it with the expressed hope that a representative body of high school men and women may interest themselves in these matters and give definite instructions and power to such officers as may be elected.

President King of Oberlin College states an accepted fact when he says that "real training anywhere helps training everywhere and consequently, also, that neglect anywhere means something of loss everywhere."

Athletics as we have them now are physical educators of a most valuable kind but do not reach the mass of young people: do not make muscle for the boy who most needs it: do not train where training will do most good.

Why is it that a boy so naturally takes up athletics? Because of his makeup. During the period that he is in the upper grades and first years in the high school we are told by those who have made the most careful investigation, that 75 per cent of his energy goes to muscle; 20 per cent to lung and 5 per cent to brain. Three-fourths of his energy, three-fourths of his waking hours are spent in muscle exercise of some kind. Athletics serves as the boys exhaust pipes. How may we, who are laboring for the salvation of the boys, be benefited by this condition. Two answers suggest themselves, first, they are the magnets that not only draw but keep many boys in school; secondly, they may be made the greatest influence on the proper development on the mind and morals of the boys just as they destroy these faculties if unattended. So long as these exercises can be made play just so long they attract the boy. This is a self-evident fact and needs no argument. What of its benefits? We are considering physical education. Since there can be no education without systematic training we will assume that these muscle exercises are to be under careful supervision. Not so careful as to remove the attraction but careful enough to remove the dangers. Under these conditions we will have definitely directed movements which, if extended to the many, will result in definitely trained brain centers and, consequently, developed intellects in our entire student body. To accomplish this, what exercise shall we introduce? Du Bois Reymond in Vol. 21 of the Popular Monthly, says explicitly that "it is easy to demonstrate that such bodily exercise as gymnastics, fencing, swimming, riding, dancing and skating are much more exercises of the central nervous system, of the brain and spinal marrow, than of the muscles. These theoretical anticipations are abundantly confirmed by the facts." These exercises are broad enough so that we might include practically any exercise we choose providing it is kept under control.

President King, who was quoted above, says, "I have myself a good deal of faith in the coming muscular minister." The writer heartily endorses this statement, because it suggests the agent that acts not only as a

developer of the mental, moral and physical well being of the boy, but as a preserver of these powers in that it suggests the only agent that can overcome the influence of the school described by Dennis A. McCarthy in his poem, "The Graduate." In this he tells us that,

"The street was his school, the corner his college,
What wonder he acquired a great deal of knowledge?
The faces of men and women were his teachers;
The pugilist taught him as much as the preachers."

He goes on to tell us that our schools have vacations and holidays. That there are times when the boy is not feeling fit and skips a day. Not so with the school of the street. It's always in session. It was easy for him to pass from grade into grade, from class into class until he finds himself with the stain of blood on his hands branding him as a common criminal. His college then grants him his diploma with loud demonstration and society calls him an outcast. "This," he says, "is taking our best day by day." Can we, teachers, stand idly by and allow it to continue? No. But what can we do? you ask. As we stand pondering, a voice from the cell of the fallen reaches our ear crying "substitute." Substitute what, and for what? Again the voice, dimmed by the wall of the prison, is heard saying, "Some harmless attraction for the harmful one of the street." This we can do. This we should do. This some will do. This all must do.

We have purposely expanded this paper until it should likely have been called "Physical Education in the Public Schools." This seemed necessary. We have tried to call attention to the fact that any kind of well regulated physical exercise is not only beneficial but essential to a full growth of mind and body. Accommodations for these exercises are necessary and will furnish the greatest problem. There is a way around it and this every one must find. Enough money is spent every year by boys of school age for pool alone to build and equip a gymnasium. Facts and figures, ladies and gentlemen, argue in favor of it. Duty calls. Let us obey.

OUR ATHLETIC LEAGUE—CAN IT BE MADE MORE PRACTICABLE?

SUPT. B. A. DUNBAR, LIDGERWOOD.

At the preliminary assignment of topics for discussion by this department of the association, on being offered a choice of themes, the writer selected that having to deal with the problem of athletic control, not from any feeling of adequate knowledge on his part, but because the matter seems one that needs discussion at this time. He fully realizes the difficulty attending such a discussion, and that any ray of light may be cast into existing dark recesses seems a remote possibility. His only hope in the premise is that we may start a discussion that will bring somewhat of order out of much chaos. Almost any scheme for the amelioration of athletic conditions must be expected to give rise to local or sectional opposition, for one of the evils attendant upon such contests as are termed "athletic," is the fact that they are usually attended by a maximum of passion and are therefore largely conducive to violence of discussion, even at this remote point of view. My position, as an opener of this discussion is, however, more tenable than it might be, owing to the fact that, by no stretch of the imagination, may I be accused of having an axe to grind, representing, as I do, a school that makes no pretensions to championship honors.

The state high school league was conceived of a desire to make of it an entering wedge which might at least make a dent in a knotty problem. It has accomplished the desire of its originators in a very satisfactory manner. Despite the rather loose mode in which its avowed attempt at the "control and betterment" of athletic conditions has been administered, we venture to assert that students working under its shelter are far more alive to the advantage attending a team that is clean, than they were three years ago; that managers and coaches are, themselves, of higher aim in their conduct of sports; that the average spectator is losing his old viewpoint of "win at any cost," and is gradually becoming more appreciative of clean sport. So much, to say the least, has been directly or indirectly accomplished through our present organization's influence. That there are some factors in our athletic problem which have as yet failed a satisfactory solution, is also my firm belief.

The contesting teams of our larger cities are surrounded by conditions which make the matter of cleanliness of sport comparatively easy of accomplishment. They are usually in touch with the work of larger institutions and have abundant opportunity to observe and apply college methods and college spirit of play. Their sports are comparatively free from local prejudice which arises from a full knowledge of conditions by the whole public. Hence it would seem that these schools should form a class but little needing the control of this league. My observations are intended, therefore, to apply to the league rather as a promoter of desirable condi-

tions in contests waged among teams representing smaller schools. Hence, also, I regard the work of the league as largely educative in its proper character.

From such a standpoint I venture to assert the existence of a few phases in which the present status of the league falls short of its intended purpose, and shall, later on, suggest, as proper topics of open discussion, a few of the remedies that have occurred to me and which have been suggested to me by others whose authority upon such questions seems worthy of our attention.

First: I regard the work of the league as too loose and haphazard to be of a forceful controlling nature. As now administered, its full duty seems to have been accomplished when it has mailed its too general and indefinite rules to the various schools, and has issued a pamphlet containing a list of the games played, with possible addition of the location of championships, if they be perfectly obvious. If there be any doubt, you have probably noted that no ruling is submitted. That is, when a matter arises, upon which an association of its nature should positively set the seal of its decision, the decision is wanting. Hence I am a firm believer in greater assumption of authority by the League; whatever be the reception of such authority among schools that have voluntarily submitted to the League's authority will back its exercise of this authority and make its enforcement a matter undoubtedly feasible. Championship disputes are an annual occurrence and I know of no more proper referee than such a League as we can have by the assumption of its proper sphere on the part of the present organization.

Second: While our present ruling as to eligibility is an admirable step in the right direction, I believe that an age limit is also advisable, and am much pleased with the report of your athletic committee in that they have seen fit to incorporate such a limit in their report. Discouragement will always attend the pitting of a smaller team against a larger, and, as our smaller schools must be varied in the size and age of material, it seems very desirable that there be fixed some such limitation in order to foster athletic cleanliness in our smaller communities. I believe that the adoption of some such age limit as advocated by the committee will go far toward the abandoning of so-called "ringers."

Third: The matter of what constitutes a "passing grade," and of the manner in which it should be controlled, also needs more definite definition. Shall this grade be construed as necessary from the first of a term? Shall it be necessary to hold such a grade one week before a contest? Shall it, rather, be a requirement at the end of the preceding month? Shall it be possible, if in arrears at a certain fixed date, to become again eligible upon proper warning? And, if so, how shall such reinstatement be made? These appear to me to be pertinent, if small, in their application. They are real problems which demand some sort of fixed solution.

Fourth: Officials are very largely dependent upon their own personal resources as to the exercise of their authority, locally considered. They are too often woefully ignorant of the purpose of their retention. Compare the requirements placed upon the abilities and athletic equipment of

an umpire in the National Baseball League, with that deemed necessary to the loosely construed fitness of a football or basketball official in our league games in North Dakota. I am fully aware that financial conditions handicap such an exercise of league power, but believe that the league can act for the great betterment of conditions along this line.

Fifth: I have referred to the lack of a body that will act as a judge of last appeal in matters of championship dispute. Such a body should have an absolutely unprejudiced point of view from which to act, and should be fully capable of passing a judgment that will be a source of authority for succeeding bodies of like nature. Such matters as forfeiture, construction to be placed upon rules, eligibility as individually considered, computation of percentages and comparative standings, should find a court of last resort and of only resort, capable of giving a reasonable and impressive decision. While I appreciate the power and moral influence of the press, I still believe that our athletic disputations could find a more proper tribunal.

Sixth: Despite the fact that, in times past, schemes looking to the pairing off of teams by non-local parties have been voted out of the league's administration, I still regard such a distribution as feasible, practicable, absolutely reasonable and wholly necessary, whether considered from reasons of expense adjustment, geographical convenience, reasonable limitation of energy expenditure, or otherwise fair pairing of teams.

Seventh: The matter of the assumption of the expenses of visiting teams needs some final and universal adjustment. This is made necessary by reason of the frequent financial disputes or dormant ill-feeling that results from a season's close before equable division of such expense has been made possible by an even number of meetings between teams that must play with each other several times in one season in order to fill their complement of games for the season.

Eighth: The aims and attitude of the League are not as yet properly understood at large. If these ideas could be more widely disseminated in matters of general moral and physical education, even during portions of the year not devoted to field sports, much of an educational value would be accomplished. If, as has been said, athletics are to become the nucleus of a training along lines leading to honor instead of dishonor, for fair play, able work, strong bodies, clear and clean minds and high motives, the League may do its largest work in advancing by its published precepts such ideas as shall make for these desiderata in the schools and communities of our state.

My own ideas as to a proper remedy for such discrepancies as are noted above have been hinted in my necessarily brief diagnosis. May I be permitted to touch very shortly upon some possible measures which may make for a diminution of these ills.

First: While the League itself should be an association of representatives of interested schools, schools interested in their own elevation to a higher athletic plane, I believe that the deciding body of this League, in all cases where decisive action must be taken, should be vested in a committee composed of men who are not locally interested in their decisions

and whose authority cannot be questioned, since they will be men who are thoroughly capable along athletic lines. This is, I am convinced, wholly along the line of the American ideal of fair play. Such committee should be paid for its services, for actual work done, and our annual dues should be placed high enough to cover such expense. This committee should be composed of men of the caliber which is to be found in the persons of the athletic directors of our state institutions, men who, from their very positions, cannot afford to be biased. The constitution of the League should be made more definite, and should embody the duties and powers of such managing or judicial committee, and the whole moral support of the schools which agree to the control of the League should be placed behind such a body. They should have full power to act in cases of disputed points, as suggested heretofore.

Second: The age limit should be placed at a maximum of twenty years, so barring maturity as in competition with immaturity.

Third: A very definite ruling should cover the matter of what constitutes a passing grade for eligibility. I would suggest that this grade be 75 per cent, to date, on all subjects required, from the opening of the school semester in which the contest under consideration is entered into. Lack of passing grade to be announced two weeks before each contest and such bar to be removable only by examination one week before the said contest.

Fourth: That the League, through its proper channels, prescribe a medical examination of players before any strenuous contests, such examination to cover soundness of limb, heart action and digestive conditions, per directions prescribed by the League, and to be given under the eye of a recognized medical practitioner.

Fifth: The League, through its committee of decision, should make every contest as devoid of possible injuries as it deems best for immature players, taking upon its hands the reformation of existing rules to suit our local desires and convenience, not paying homage to the rules compiled by any institution or body of men not conversant with our own desires in the matter.

Sixth: That the said committee prepare and disseminate a code of rules and requirements to guide and assist officials of amateur contests, such rules to specify the exact authority of such officials in the matters of the opening, conduct and enforcement of order in such contests, the said officials being required to report upon properly compiled report blanks, their official report as to the observance of such measures, such report being necessary to the recording of the contest in consideration upon the records of the League.

Seventh: The League should proceed to divide the state into districts, reserving as one division the large schools, the smaller schools being districted geographically with regard to convenience of approach and expense of visits. The teams desiring recognition at the hands of the League should so signify, as early as may be prescribed, and the committee in charge of the League's management should by lot assign dates for their meeting. When such districting shall have limited contestants for state

honors to one from the list of larger schools and one from the smaller, these two might be allowed to meet to play off the championship, as may be thought best by the League. This is the only method that has caught my ear, from outside suggestions. It seems to accomplish the separation of the more able teams from the less able until a season's practice shall have rendered the teams needing such practice more on a par with those whose facilities of early attendance and better coaching facilities renders them absolutely impossible as fair competitors early in a season. It also does away with haphazard placing of contests from local reasons which are not always of the highest motive.

Eighth: I believe that the equal assumption of the expenses attendant upon inter-school contests is the most feasible method of avoiding financial ill-feeling among teams and communities, and that it should receive the seal of the League's approval.

Ninth: Inasmuch as the matter of athletic control has been given a place in the High School Council's deliberations, I believe we should go a step farther and incorporate the League as a component part of the Council, requiring its annual or semi-annual report of its doings to the Council. High school athletics have undoubtedly gone to such a length as to become decidedly identified with the other departments of school work. It seems fitting, therefore, that this work of the League could and should be made more practicable in its full application to the good of the schools' work, by complete identification with the body of educational people which has done so much to shape the educational work of the state. In my opinion the League should be no longer an independent body, but a component part of the High School Council.

I have ventured to advance these opinions, not with the expectation that many of them may be embodied in the result of your deliberations, but, rather, that they may perchance lead to some discussion which will in turn produce a final betterment of the standing of the League, and in its consequent accomplishment of that for which it was conceived.

HOW TO JUDGE TEXT BOOKS IN HISTORY AND ENGLISH.

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In discussing this subject I have divided the paper into two sections. The first section discusses "How to Judge Text Books in History." The second section examines the problem—"How to Judge Text Books in English." The reason for including both these subjects in one paper is not wholly evident to the writer. History and English have become distinct branches of study. The knowledge required to choose a text-book in history is quite different from the knowledge required to choose a text-book in English. They are two distinct subjects and I shall treat them as such.

History is the realm of man and the spirit of him, and by the study of it we are taught something of philosophy. It broadens the viewpoint, exercises the memory, and develops the reasoning faculty, for history is an exact science. The study of history aids men in the direction of their activities to the most efficient and effective end. James Madison and his contemporaries' careful study of history enabled them to draft so well the present constitution of the United States.

In the past the authors of history have filled their columns with facts and material that have been well and good, but not essential and vital. These facts selected from the great sea of events would not and could not guide or direct a schoolboy to any better or wiser action, or make him a better citizen. It would not aid him to understand better the origin of our institutions, our government, our society, and our industries. We have found in many of our histories long and extended accounts of the movements of armies, the mistakes of generals, and the separate flank movements of the army. The left flank of the army drove back the right flank of the opposing one. The right flank was able to hold its opponents, while the center remained firm as a rock. These flanking movements of armies have very little to do in aiding a boy or a girl to feel and know their duties and responsibilities as citizens, to discern the origin of our institutions and government, to understand the mechanism of our present industrial system. The causes and results of these wars in most cases are sufficient.

We are all aware that the present tendency of the authors of histories is to eliminate the old flanking movements. However true this may be, in our present text-books there are yet generally too many non-essential details without proper arrangement to a definite and specific thought. Thus when a pupil has finished the work in American history, we shall say, they are not able to detect essential from non-essential events, and, in fact, have very little definite knowledge. I believe we should insist upon a few essential things well learned.

History is no longer a catalogue of facts. We have given that field over to the encyclopedias. History has become philosophical in its nature. Dates are unimportant only as central pivots around which important

events cling. Details of any sort are important and should be found in history only as they are used to illustrate the central fact. I know of a text-book in history used a great deal in our schools today, in which the author has so many facts, so unsystematically arranged that it takes a person well read in history to catch the illusions. Such a history mentions a lot of facts, but leaves essential points indefinite and hazy. This leaves the pupil out in a great sea of facts without chart or compass to guide him to any harbor. He sees many facts but is unable to systematize them or connect them to any definite or specific idea.

Now, the question comes, "How to Judge Text-books in History." I shall answer this by asking another question, which I believe to be closely allied to the first one. What is education? Education consists in seeing the relation of ideas. You are educated in mathematics when you can see the relation of numbers, of magnitudes and of angles. You are educated in physics when you can see the relation of force upon matter. You are educated in economics when you can see the relation of the laws and forces that regulate the markets. You are educated in history when you can see the relation of past events upon the present. A text-book on history should be so arranged that the student can see the relation of past events upon present events. Any text-book on history that does not measure up to this standard fails to meet the requirement of an up-to-date text.

One of the most serious defects in the present arrangement of our text-books, is the fact that too much time is spent upon ancient history in proportion to the time that is spent upon modern history. Since 1750 the great bulk of our history has been made. Since that time most of the political reforms have been accomplished. Free governments have become a reality. The individual has asserted himself. As a result we have freedom of action, freedom of speech, freedom of the press, and freedom of worship and the ballot has become an instrument that makes kings servants and the individual king. Since 1750 the intellectual and religious history has been revolutionized. The brotherhood of mankind is felt and the chains of millions have been loosened. The hero of today and the hero of 300 years ago are different personages. The industrial revolution of the world has been seen since 1750. Our commodities no longer are raised and consumed by the same person. One half the world is producing for the other half. The present industrial system with all its mechanism of exchange has become so complex and intricate as to need the careful attention of our high school students. On this period from 1750 is where the stress should be placed. Teach the previous period only as it helps us to understand more fully the later period.

All history should be divided into three divisions—the political, the psychological, the industrial. I shall explain each.

In political history the civil government in its various forms should be studied. The nature of the executive is seen, whether he is absolute or limited in his powers, whether the office is elective or hereditary. The growth and power of the legislative and judicial are traced. The unit of government is observed. By such a systematic study of the govern-

ment the student can look back through the ages and trace the origin of our own institutions and customs.

When we speak of psychical history we mean the spirit, the thought, the life that moved among the people. It pertains to the living principle of man. It could be properly divided into three heads—the religious, the intellectual, the social. Each period in history has its religious changes, its intellectual changes, and its social changes. Each age in history has produced its Socrates, its Alexander, its Caesar, its Charlemagne, its Napoleon. In each period we find a new aristocracy, a new populace, a new common people. Each age has a new problem to meet. Thus the pupil is brought into the atmosphere of the different epochs and made to feel the real psychical forces that were moving among the people.

By industrial history we mean to treat each phase of history from a purely economic viewpoint. The planting of the colonies has an economic significance; the revolutionary war has an economic significance; Washington's administration has an economic significance; the civil war has an economic significance.

I am of the opinion that the industrial history should be given the greatest importance of the three. This is pre-eminently an industrial age. The high schools are the schools of the people and in response to the demand of the times must teach industrial history. More than ninety per cent of the people are engaged in industrial pursuits. Industrial history is something intensely interesting and appeals to the average pupil of today.

The need of industrial education is manifesting itself in every state in the union. Each state has established its agricultural college and industrial schools. Much more should this principle apply to the secondary and elementary schools. They are nearer the people. The former educate the privileged few, the latter educate the masses. Any text-book needs systematic map work. This gives them a framework around which to cluster their thoughts.

In the way of summary, I believe the text-book in history that meets up-to-date conditions eliminates non-essential details, places emphasis upon the period since 1750, is definite, concise, picks essential points and makes those points clear. I believe that the three essential points around which all other matter should be grouped are the political, the psychical, the industrial.

How are we to judge text-books in English? I shall speak of just one branch of English, i. e., history of English literature. Now, why do we study literature in our schools? Primarily for the enlargement of the soul. While it is true that the study of literature sharpens the intellect, and that an analysis of Burke's orations is as good training in logical reasoning as can be derived from a study of geometry, yet, when all is urged, it must be said that the chief reason for the study of literature is the enlargement of the soul.

In all times there have been master spirits, men who have looked out upon this wide world and have known it through and through. The thoughts and experiences, the wisdom, the joy and the sorrow, of an age have been crystallized in their souls, and the priceless gem poured forth

for us. At times these men have spoken to us in great harmonies of music; sometimes they have appealed to us from the glowing canvas; but most often immortal truth and beauty have been committed to letters—the language spoken and understood by all. These kings and queens in the realm of spirit with power far surpassing that of any temporal sovereign, call to us from the shelf of every library. Here in literature—the best thought of all time shaped into form of exquisite beauty—we find the wisdom and inspiration that can lead us back from an age of steel and cruelty to an age of justice and kindness.

How then should literature be studied? It should be studied to get straight to the heart of the author—his thought and his feeling. How then should we judge a text-book in English? A text-book should be judged with reference to that element that most completely brings us into an atmosphere of the age, environment of the author, the dominant forces that were moving upon society.

We just begin to appreciate the work of Burns when we know the life and environment of Burns. We cannot appreciate Whittier's poems without understanding first the spirit of the age that inspired those masterpieces of freedom and liberty. When we understand the deep significance of Puritanism, the influence it had upon its day and age, the rich legacy that was bestowed upon society due to its beneficent influence, the writings of its chief exponent, John Milton, shine forth with a luster and a meaning not otherwise comprehended.

Each individual author has had turning points in his life that has changed completely or modified greatly the dominant thought of his life. To rightly study English we should be able to get at the very soul and life of the author. By such close study the soul and life of the author will be reflected upon the student. Whenever a text-book in English will lead the pupil to see the environment, the life, the soul of the author, and enable him to read the author's work with intelligence and pleasure, it is a good text-book in English. I believe that a teacher, filled with inspiration and life and knowledge and love of her subject, is the greatest possible factor in creating such a spirit.

FIVE PROBLEMS OF THE TEACHER IN TEACHING.

B. A. WALLACE, TRAIL COUNTY.

QUESTIONING.

When we think of the portion of a teacher's time that is devoted to the asking of questions we cannot but feel that it is worth one's while to make some study of questions. When we think though that our questions are the principal means of testing the knowledge and preparation of our pupils, of making that knowledge accurate, of teaching the child how we wish lessons worked out, and of developing the pupil's powers to observe, to think and to talk, it is then that we begin to appreciate their importance.

One's improvement in questioning usually begins from the negative side, with the avoidance of certain objectionable questions. *Never* is a word that is generally too strong for rules of teaching and I am not going to say, "Never ask such and such questions," but among the weak questions generally to be avoided are the questions that can be answered by yes, or no, like, "Did Washington become president;" and the question that offers merely an alternative between two words as the answer, as in "Was Washington or Jefferson our first president?" Neither of these questions call for much thought, and in either it is difficult to avoid indicating the answer by the inflection. Another form of questioning which has the fault of not calling for thought is the so-called elliptical question. I heard a teacher not long ago say: "The Union general at Gettysburg was —, and the Southern general was —, and the battle was won by the —." The pupil was expected to have the three words Meade, Lee and Unionists, ready to insert at the proper pauses, but note that to get the pupils to use three words the teacher used eighteen words. "The business of the teacher is to get her pupils to think, not to think for them; to get them to talk, not to talk for them." Another objectionable question is the indefinite question. This leaves a pupil two questions, first to guess what the teacher means, then to try to answer it. Pupils though generally choose the easiest way and get to answering anything that might be an answer without trying to find the right meaning.

Characteristics of a good question:

First, a good question is definite. This does not need to mean that the teacher has worked out the exact wording of every question before the recitation. It does mean though that she shall have thought the lesson through and know clearly the points she wishes to make and their order of development.

Second, it should call for some effort of thought as well as memory on the pupil's part—not so difficult, however, as to be out of his reach.

Third, it should be adapted to its purpose, e. g., if it be designed to test, it must tell nothing of the facts one is testing for. If it be to clear up and make accurate the pupil's ideas on a subject, it should be pointed, clear-cut and searching. If it be to instruct, it and the series of questions

it belongs to should lead connectedly through the ideas that the pupil has to what the teacher wants him to know.

Fourth, a good question is in simple, clear language. A little miss answered the door bell and was asked, "Are your papa and mama at home?" "Yes, they are." "Are they engaged?" "Engaged! Why, they're married. I'm their little girl." The caller had a great story to tell about the little girl's mistake, but whose was the mistake?

Questions may in themselves be good, but may yet be very poor work, because poorly distributed. The old method of beginning at one end of the class and going down the line reaches everybody with a question, but those who have answered once or who are far down the line from the one reciting are likely to lose interest and allow their attention to wander. Some teacher call for volunteers, and this arouses more interest probably, but if one is not careful, a few do most of the reciting, and the slower pupils do hardly any. Some use a card system and mix the cards frequently, so as to change the order, laying out the card of the pupil who fails and calling on him again later. Probably a judicious mixing of the first two methods gives the best results, i. e., having a system for each day, but beginning sometimes in one place, sometimes in another. Going sometimes one way, sometimes another, and always making more or less use of volunteers.

As was intiated above, questions good of themselves may be poor work because in poor order. This is, however, a question of the arrangement of the recitation.

THE RECITATION.

The first thing to note about the recitation is that it should not be merely a re-citation—a telling over of the facts of the text in the words of the text. It should be a teaching exercise, i. e., it should lead the pupil to think, to compare the new with his former knowledge, to understand as well as remember. To this end, one of the best plans for the recitation is the one known as the "Five Formal Steps." I object to the word "formal," because they should be natural and informal; and there are not always five of the steps, either, so the name is not a very good one.

We are told that isolated knowledge does not stay in one's mind; that it is only when we have joined or associated a new bit of knowledge with the fund of knowledge already in the mind that we can depend on retaining it. So the first step is the preparation of the pupil's mind for the reception and retention of the new. The statement of the aim of the lesson will help the pupils to drive out of consciousness the great mass of knowledge they do not need for the time and to call up some of the ideas that are related to the new. The aim need not be stated formally, but in an offhand way, e. g., "Today we talk about the Battle of Gettysburg," or "I believe I asked you for today to study the causes of the revolutionary war." Then let the teacher by a few questions or statements bring to mind freshly the facts the pupil already knows which will aid in understanding or remembering the points of the new lesson.

The next step is the presentation of the new. The first thing to note is that it should be founded on the preparation—should lead directly out from it. In presenting the new lesson, select the essential points and let them stand out clearly. Many a lesson is left without any point, because each fact was to teacher as well as pupil no more or no less important than any other. Now this is never the case with any lesson. In every lesson there are one or two or four or six points that you wish to make, and to leave with your pupils. Make these points stand out clearly, and bring the details into the proper subordinate relation to them. Further, these points have, or should have, a relation to each other. Bring them into this order; present them in such order that each explains and is explained by the rest—that each is part of a system.

The third step is that of comparison and association. The more things the new is associated with, and the stronger or clearer this association of ideas is, the better the new is understood and the longer it is remembered. To understand a thing is merely to be able to interpret it in terms of former experience. Then to help our pupils understand the new, let us call up in his mind the things he already knows which we can associate and compare with it. The new is like something the child has met before in his experience, or is unlike it, is related to it as cause or effect, or happened at the same time and to make the comparison both strengthens and clarifies the impression, at the same time that it helps the pupil to make the new knowledge his very own.

In grammar, or arithmetic, or any science, it often happens that we are developing some general principle like a definition, or rule, or a natural or scientific law. The first three steps have brought together the necessary data, have arranged and organized it, have compared and associated it with the pupil's former fund of knowledge. Now we are ready for the generalization itself—the statement in the pupil's own words of the general principle we have been developing. It may take several questions to guide him to an accurate statement, and it is often best finally to give him a better wording for the law than he is able to formulate himself. (If you do give him the generalization, give it in words that will mean something to him.) The point here is that the generalization should be made and that it should be preceded by the development of it that makes the generalization full of meaning to him when he does get it.

But to reach the generalization is not enough. All teachers of experience know that to clinch the new knowledge, and sometimes to clear it up fully, it must be applied. When your pupil has learned that every sentence consist of two main parts, subject and predicate, you do not stop there; you let him find the subjects and predicates of several sentences. This constitutes the fifth step, application.

The five steps then are preparation, presentation, association, generalization and application. Sometimes, however, we are not developing a general principle. In history or geography or physiology or nature study and elsewhere, the aim is often the discussion of some series of related facts, which may refuse to generalize into some law which we can apply.

So the last two steps disappear here, to give place to a summary—a brief statement of the central facts of the lesson, in proper order and relation.

Another point to notice (and this constitutes the main objection to the word formal) is that we do not always finish up the preparation, then offer all the presentation, then all the comparisons or associations, etc. Often part of the preparation leads up to one or two of the new ideas; then we go back, take a new start and develop another part of the advance lesson, etc. Also the comparisons and associations mingle more or less with the other steps. It is always true of any given idea, however, that we should prepare the ground for it, present it, then extend the associations of it in other directions by comparisons, etc., and with the lesson as a whole the same general order of presentation prevails.

To sum up, our every recitation should aim to connect its new material with that already in possession; it should aim to make the essential points stand out clearly and in proper relation to each other; and should leave teacher and pupil with the feeling that a definite advance has been made.

TEACHING PUPILS HOW TO STUDY.

We teachers like to talk about the powers we develop in our pupils; we are fond of saying that we aim not so much at knowledge as at power. One emphasizes power to remember, another power to observe, another power to reason, and so on indefinitely. For a little while today let us consider another power—a power which is of the greatest value to the pupil while in school, and of just as great importance to him throughout life; a power which is greater than the power to observe, to remember or to reason, for it includes all of them and more; a power which it is especially our duty to train, for it is a power that by most people is gotten, if ever at all, during their years at school, and that is, the power to study. Few of our pupils will need their arithmetic for much of the time in their late life; many of our pupils will make little use of their geography, or history or physiology. But where is the person who would not find of value in almost any of the problems of life, the power to study? We get together frequently though to talk about how to teach geography or arithmetic or some other subject. Why not for a while investigate this greater question of training pupils to study? But what do we mean by "study?" What is the power to study? No two of us here present would define it in the same way. For the purposes of this talk I am going to take the expression "to study" to include these things:

The effort to discover the essential points in the data being investigated.

The organizing of these essentials in relation to each other and one's former knowledge, that is the understanding of them.

The further search for illustrations or data to ratify or challenge the conclusions as they are formed.

Now all this looks like a large contract; if study means all this, and study is not complete until all these things are done, it looks rather discouraging. But, on the other hand, when our pupil is doing any of these things, hunting for the essentials, organizing them or trying to see what they mean, or looking for further data, on them, he is studying, is not only learning his lessons for the day in the very best way for him to

learn them, but is forming habits of investigation, is gaining a power that will be of use to him every day of his life. Then it seems to me the thing for us to do is to give him practice in these arts, to exercise him often and repeatedly in selecting the essentials, in arranging them, in interpreting them, in verifying or disproving them. So our question becomes, What are some of the means to this end?

Before the child comes to school he has begun the training. He is a natural investigator; he wishes to understand things, to get an explanation of things that puzzle him. His parents may, by encouraging this tendency, have contributed much toward his some day becoming a student. When he comes into our hands, let us encourage this tendency, by throwing out questions that arouse his desire to look into things, by suggesting possible explanations, etc. By all means let us avoid the error of taking him away from things he is interested in and rushing him off into words, words, words that are void of both meaning and interest to him; let us endeavor in all things to keep alive this interest in things, this desire to understand them, this natural why of childhood.

The next step is one that arises naturally in the reproducing of stories—one of the first exercises of the school. We tell the pupils a story, or read them one. If we tell them a story they do not understand some detail may make a greater impression on them than does the story as a whole. But if the story is within their grasp and their interest, they will get the story fairly well organized in their minds as we tell it to them. Then we ask them to tell the story to us. They will probably not remember every detail; they will, though, struggle to tell back to us the parts that really go to make up the story and will try to put those parts together so that they make a connected story. But what is this search for the "parts that make the story" but a search for the essentials, and what is the attempt to make a connected story out of them but an exercise in organizing the essentials? Soon he begins to read a little, and from the first he should be expected to know the main facts of what he has read, and to prove it by telling them. When he takes up physiology or geography or history, the same rule holds. When he has read something in his geography or other text, he should feel and be held responsible for knowing and telling the main facts of it at least, and in reasonably logical order. If he cannot understand some one of the points, here is the place for a suggestive question, or hint, or possibly a full explanation from the teacher. If he cannot organize these main points successfully, here is a work for the teacher. In helping him thus to find just where his trouble is, to find a way to overcome it, to feel that his work is incomplete until he has discovered and overcome the difficulties, we are not merely helping him to gain the knowledge of the moment, but are training him to study, helping him to form habits of study.

The third means for this training which I have noted here is one we have an opportunity to apply several times every day—an opportunity which, sad to relate, we often throw absolutely away—and that is the assignment of the next lesson. In this assignment we indicate to the pupil the work which we wish him to prepare. I wonder though if we do not

generally indicate the amount, and leave to him entirely the discovery of the method. If the lesson is so similar to some we have already taught him to study, that we feel reasonably sure of his ability to study without serious waste of time, this may be permissible, but this will seldom be the case. If the work assigned be one that calls out his powers as it should, there will be need of preventing his waste of much of his time, by our making the assignment quite full and definite, possibly indicating sources of material, special difficulties, special points of importance, etc. Sometimes an assignment is necessarily beyond the pupil's power to remember with sufficient accuracy. This is the place for the written assignment. I feel sure that the assignment should take place much oftener than it does. If the assignment is too complicated to be easily remembered, or calls for more or less detached data chosen out of a large amount of material, as often is true in review lessons, or if the organization of the material is important, the assignment should, I think, be written on the blackboard.

A fourth means of training a pupil to study is the written summary by the pupil. It can be used to advantage in nature study, geography, history, physiology or civics, and occasionally in the other subjects. To call on your pupil to bring in next day a paragraph on Washington's Administration, or the Louisiana Purchase, or the digestion of food, to do this frequently, and then when the paragraph is presented to suggest essentials omitted, or improvement in organization, possibly to ask him sometimes to rewrite his paragraph in the light of these suggestions, is to offer him one more means of training in study.

A fifth means, not at all fifth in importance, is the study-lesson, in which teacher and pupil with the data before them in the open text or on the board, together study the lesson. With the teacher as guide the pupils with ease travel a path of knowledge that would be difficult or impossible for them alone. This study-lesson is often used by teachers in working out with their pupils a general principle or method in arithmetic or a definition or classification in grammar, but not so frequently in geography, or history, or physiology. In any and all subjects there is need of the study lesson occasionally—far oftener, too, than it is used. In map study, in relating relief, latitude, etc., to climate and products in geography; in organizing the data of history; in the preparation of reading lessons; in nature study and elementary agriculture; in all subjects, in fact, arises the need, not only of written summaries, of good questioning and of careful assignments beforehand, but occasionally of a full period when the pupils study under the teacher's careful leadership, and thus learn how to study by practice under guidance.

Other aids to the pupil's learning how to study are the well planned recitation and the skillful questioning by one who has first thought the material through and organized it; these two topics are, however, handled elsewhere in these talks.

To sum up, let us teach our pupil not so much to read words and listen for words, and remember words, as to read ideas, listen for ideas and

remember ideas; let us teach him in whatever he investigates to search out the essentials, to organize them, to verify them, and through this search for ideas and for the central ideas in what he investigates, he is learning to study, is learning to investigate, is preparing for the independent and self-reliant study of the problems he will be called on in later life to solve.

MINUTES OF DEPARTMENT OF ELEMENTARY EDUCATION.

FIRST SESSION, DECEMBER, 29, 1909.

The meeting was called to order at 9:30 a. m. by the president, W. E. Hoover, of Fargo.

Each theme was treated by inspirational talks of twenty minutes by the leader, with opportunity for question and discussion by the audience, of which opportunity they frequently availed themselves.

Time and Subject Matter in Arithmetic, was given by Supt. P. S. Berg, of Dickinson, under the following heads:

- (a) Value of Arithmetic.
- (b) Training for accuracy.
- (c) Fundamental operations.
- (d) Grouping and treating of related matter.

Miss Eula F. Miller then gave an illustrative presentation of hand work in the grades.

- (a) How to conduct seat and construction work.
- (b) Work for lower grades.

Supt. C. C. Gray, of Grafton, then gave a paper on Teaching of Geography Not All Text-book Work.

(a) Our later day conception of geography: (1) Vocational vs. Locative Geography; (2) Comprehensiveness of the Geography Subject; (3) Selecting Sectional Study.

Prof. G. W. Randlett of the Agricultural College, gave a talk on Teaching Agriculture in Rural and Village Schools.

Supt. B. A. Wallace of Traill county, gave a talk on two of the Five Problems of the Teacher in Teaching.

- (a) The School and the Community.
- (b) A Live School.

Adjournment.

SECOND SESSION, DECEMBER 30, 1909.

Supt. P. S. Berg continued his theme giving:

- (a) Shop Method in Subtraction.
- (b) Decimals.
- (c) The Metric System.
- (d) Checking Results.
- (e) Estimating Results.

Miss Eula F. Miller continued her theme, giving:

- (a) Weaving.
- (b) Materials.
- (c) Value.

Miss Eula F. Miller was elected as the representative of this section on the nominating committee for the general association.

Supt. C. C. Gray continued his theme on Geography.

(b) The Inadequacy of Text-book Geography: (1) Forms of Geography Text-books; (2) Terseness of Discussion; (3) The Elements of Home Interest; (4) The Use and the Limitation of the Map; (5) The Teacher and the Larger View.

Prof. G. W. Randlett continued his theme of Agriculture in Rural and Village Schools, giving:

(b) Soil Moisture Demonstration.

Supt. B. A. Wallace continued his theme on Teaching, giving:

(c) The Recitation.

(d) Questioning.

(e) Teaching Pupils How to Study.

Adjournment.

THIRD SESSION, DECEMBER 31, 1909.

The themes of the previous days were continued. Supt. Berg gave:

(a) Oral Arithmetic.

(b) Simplification in Arithmetic.

(c) The Text Book.

(d) The Teacher.

Miss Eula F. Miller continued her theme:

(a) The Application of Design in the School Work.

The association now took up the business of electing officers for the ensuing year. Supt. C. C. Gray, of Grafton, was chosen president. Supt. B. A. Wallace, of Traill county, vice president, and Miss Eula F. Miller, of Fargo, secretary.

Supt. C. C. Gray continued his theme on Geography.

(c) Some Supplementary Aids to Live Geography: (1) The Descriptive Reader; (2) Pictures, guide books, models; (3) Industrial Exhibits and Samples.

Prof. G. W. Randlett continued his theme of Agriculture, giving a demonstration of the Babcock Milk Test.

Adjournment.

MISS MARGARET RUTHERFORD,
Secretary.

CONSTRUCTION AND SEAT WORK.

MISS EULA F. MILLER, FARGO.

When unhealthful bodies, dulled mental powers, restless children, and lack of control are evident in a school room, it is safe to say that repression of expression is the real cause. It is my most sincere belief that the right kind of seat work and construction work skillfully taught and used will result in better writers, better thinkers, better boys and better girls in any schoolroom. They learn to tell the truth with their hands as well as with their word of mouth. But on the other hand I would not have this work take the place of any of the three R's; for all this must strengthen the other subjects if it would do its greatest good. It can use the minutes which are sometimes wasted.

In all such work teach the children *how* to do, before we can expect them to do or to gain any pleasing results. It is worth while to repeat until good results are obtained. A good order of development is, first, to see; second, to compare and judge; third, to hear directions and understand them; fourth, to make.

Let us be sure that every exercise shall have some power within itself which shall (a) aid in the control of body and mind; (b) that it shall lead to better judgments; (c) that it shall insure more perfect measurements and more perfect constructions; (d) perhaps it may emphasize or clinch some class work.

If it can not pass one or more of these tests we had better not use it. There are a large number of publications which will be found very helpful and any teacher who really wishes this work in her school can have it. One teacher who had taken the construction work offered in one of the summer schools said to me: "My children are cleaner, my discipline is better, the interest in all their school work is greater and they do it better."

Some of the heads for seat-work are:

1. Free-hand tearing, trees (showing the shape of several more common trees), animals, vegetables, fruits, etc.
2. Free-hand cutting, using the same as in the tearing, also simple toys and illustrating Mother Goose Rhymes as Jack and Jill, Old Mother Hubbard and Little Boy Blue. There are so many stories to tell with cuttings. Whenever we are to show a story out of doors, let us cut the distant trees or water line to mark the sky line; for all objects need some place to rest upon, generally the ground. Many games can be illustrated in this way, as jumping rope, playing ball, sliding, etc.
3. Tracing circles, squares, oblongs, triangles and simple geometrical shapes. They like to and can now learn to recognize and define each one as presented.
4. Paper-folding. The first is based upon the checker-board or sixteen squares. This is particular work. Have we really true squares or oblongs? Are the corners pasted just right?

5. Other constructions with tooth-picks and soaked peas, also small corn-stalks are valuable since they require exact measuring.

6. Modeling. For this clay seems to be the most satisfactory material for the lower grades.

7. Lying. Alphabet cards, number cards, word cards in script; colored squares and circles to teach the colors, making the rainbow. Shoe pegs are useful in making their first designs, also in showing shapes of many objects and even illustrating stories.

I have mentioned several classes, all of which I have used, but not in the same year. From the great store of exercises we must choose those most need at a given time or in a particular community. Too much can not be said in warning for some enthusiastic ones who may overdo this phase of our school work. They will meet and have already met with disfavor in the minds of some of their patrons.

WEAVING.

This part was entirely an illustrative talk and little of it can be helpful in the short review given here. Some of the materials used, together with the amount of each required is stated in answer to a good many inquiries from teachers.

The yarns, chenilles and macreme cord can be bought at Todd & Todd, at 319 6th Street, Minneapolis. The cheesecloth, silkline and warp at most any department store. A large darning needle or tape needle will do for the weaving.

Paper weaving with half inch strips, then narrower strips, precedes the weaving with cloth, yarn or cord. As in all work in primary grades, we work from the large to the smaller, from the coarse to the finer.

One pound of rug yarn will make six rugs nine by twelve inches, or eight rugs seven by ten inches. Sixty cents per pound.

One pound of chenille will make nine rugs nine by twelve inches, or twelve rugs seven by ten inches. Sixty and seventy-five cents per pound.

One pound of Germantown wood (eight fold) will make thirty-two holders, six by six inches.

One pound of macreme cord (four balls to the pound) will make five hammocks seven by ten inches. Twenty-five cents a pound.

One spool of warp (one-half pound) will string sixty rug looms nine by twelve inches. Fourteen cents a spool.

One yard cheese cloth for one six by eight wash cloth. Five cents.

For silkline rugs with borders three-quarters yard of figured for center and three-quarters of a yard of plain for border for nine by twelve inch rug. Cut on bias, and strips should be drawn through the hand to fray edges. Strips one-half inch wide.

GENERAL SUGGESTIONS.

1. Rug yarns should be broken, not cut.

2. Splice all rugs by "running by." Introduce the thin end of new piece where you left off and run it back three or four threads under and over as in all weaving. Same method with silkline. Tie no knots in rugs or blankets.

3. Begin at end of loom, leaving five or six inches of wool to run through loops after rug is removed from loom.
4. Pack tight at top and bottom, but loosed in center in all weaving.
5. Do not try to weave without side wires.
6. In stringing looms the warp should always be a continuous string and when strung should spring lightly beneath the hand. The first and last warp string should be over each rod. (A firmer edge is secured if double over each rod.)
7. All weaving is improved by pressing. Use a warm (not hot) iron, and press between woolen cloths to avoid shining.
8. The under side of weaving is the right side.

DESIGN.

This was illustrative. I shall attempt to give a brief review.

The designer, even though a child, is confronted with a definite problem, namely, the size and shape of the space to be decorated. These spaces may be broken by lines or by areas. There should be some leading lines, something to carry the eye from one unit to another and bind all together. We must see the design as a whole, not as a collection of spots. Balance, harmony, rhythm must all be considered. Straight lines are more satisfactory for the beginners, but when the contour demands it, curved ones must be used. Harmony demands that the design must have something in common with the shape of the object or space to be decorated. The units must not be too small, so that they seem to be floating in a space, nor must they appear to be crowded. "Good design" must invariably be sane, regular, orderly and consistent throughout. We must draw upon the child's creative faculty. Strive to develop his power of expression. "Nature is necessary to the designer, but not to the design."

Flowers, fruits, seed-pods, insect and animal life furnish interesting material for design. Many of all these subjects are not suitable. It requires good judgment to select usable sections. By using some part or parts of some of them, when simplified by putting in some of our own thought, something of ourselves, we say the treatment is decorative or conventional.

Thus as in all our hand work, from the simplest to the most difficult, we ever strive to lead the child to express himself and to improve his power of expression. Shall we work for control of body, for a more interested spirit, for a broader outlook? Shall we try to have the children under our charge happier, and more eager to go on to find the riches in store for them in higher education? Then let us teach them "How to do things." Let us increase his ability, his judgments and every power he has. Then we shall prove that we believe in boys and girls, "The Men and Women," of a great tomorrow.

THE TEACHING OF GEOGRAPHY NOT ALL TEXT-BOOK WORK.

SUPT. C. C. GRAY, GRAFTON.

(Section A—Wednesday).

Glance back in your memory to the time when you began the study of geography in the public schools, and those of you whose years have brought you to the years of experience, will recall that a very large part of your time in this subject was devoted to the religiously thorough study of column after column of "map questions," with the equally thorough conning of the maps for the location of cities and towns, many of them destined never to challenge your attention again, and seeming to have no higher function than that of challenging you to wager your powers of patience and endurance to the extent of sticking to the task till the last village was run down. To what good and useful end all this labor was being extended you yourself was, of course, too immature to inquire into. It was the "study of geography," and geography was one of the assigned studies of your daily allotment. The teacher had qualified in the high ability to check you up on your ventures of memory by a careful application to the accompanying map, and that was the kind of geography *she* knew, and the only kind, therefore, that she was prepared to "teach." Along with these devices for busy work and seat industry were ordered a few choppy columns of descriptive text, with a few pictures, and followed by a tabular list of the various races of mankind on the earth, showing the genealogy of the stock into the sundry nations of the world.

We were told to define geography as "the description of the earth's surface," and we were somehow to understand that such description consisted in locating the towns and villages of Christendom and heathendom. With the passing of time, and the coming into greater notice of the geologist and his work, we were given warrant to doubt somewhat the sufficiency of our locative study as geography, and were urged to interest ourselves more in the geological and topographical viewpoint of the earth's surface and crust, since geography was defined as "a description of the earth's surface." Then followed a teaching of the subject which, in the enthusiasm of impulse, went to the other extreme of concentrating our attention upon the elements and their work in gouging out and shaping over, in reducing and filling in, in breaking down and building up the constituents of the crust of the earth so as to produce the land forms of the topography that meets our view. Geography now became physiography preponderantly. Lately we have come to feel that this, too, fails of meeting requirements, and we are coming very decidedly to believe that most of the good to growing manhood and womanhood which the study of geography is to afford is rather to be found in the study of where people live, what people do, and how they do it. We are coming to invest *this* subject with the significant content now being energetically read into most of the other common studies of the schools—that of a direct and pointed

inquiry concerning the activities and welfare of man. In geography, as in history and literature, we wish to know where men live, what they do, why they do the things of their interests just in those places, and how they go about it to accomplish the ends of their vocation. We are coming to feel that our former ideas and definitions were not mistaken but inadequate. We feel that the study of geography is but poorly and insufficiently defined to state it that it is "a description of the surface of the earth," that it is but very partially considered when that "description" is limited at all to the locative study of places and things and an investigation into the physical features and topographic forms wrought out by the elemental agencies, and that the one great, important, all-concerning factor of the study has been disastrously eliminated when we fail to put the stress of the subject upon the responses of men to their geographical environment.

Note that this analysis does not err in assuming still another extreme view. We do not advocate that the proper study of geography is limited in decisive measure to the vocational study of man on the earth. It is conceded, with a positive urgency in the matter, that locative and physiographic study is a legitimate and necessary part of geography; but that to stop with that is to fail in tying up the vocational interests of the community of labor with the regional discussion of places and things, and cuts the study off without the vitalizing element of the responsive doings of man. This paper quite thoroughly agrees with the contentions of Prof. Rollin D. Salisbury, as voiced in a late article in the *Journal of Geography*, that the woeful want of accurate knowledge in locative geography by young men and young women, as indicated in that discussion, is a serious matter, and that it is but dignified, to say the least, for boys and girls to come into manhood and womanhood with a sense of locative geography keen enough to know the states of the Union and their chief centers of industry, the names and location of the principal waterways, railways, plains and mountains, distances and relative sizes, boundaries, etc., first of all of our own country, but also of the countries of the world generally. With him we of the North Dakota schools will very generally agree that locative knowledge should be greater than would leave the student in doubt as to whether "Albuquerque may be a country, Manitoba a village, the Volga a kingdom, and the Selkirks a tribe of Indians." Agreement with him is acknowledged in that a thoroughly careful guidance of maps and textbooks should be permitted in the study, and that shapes, positions, directions, distances and "how-to-get-there" facts should be thoroughly learned by the student. All this is a necessary groundwork for a proper comprehension of vocational study; and just as the foundation pieces of the building must be carefully related and placed, so should this understructure of vocational geography be invested with the dignity that its value warrants. It is a mistake, however, to consider the main structure of the subject to consist in its foundation, and thus to fail to tie up the industrial activities of man with the facts and formations of his peculiar environment. More in detail will be said on this special view in Friday's talk. It is seconded, here, however, that "The greatest study of man is man," and it is urged

that the study of geography is decidedly not restricted to "a description of the earth's surface," but that it finds its highest ends in teaching the doings of man on that earth which it "describes."

The very brief treatment of forms of industry that is given in our usual type of text book leaves the knowledge of those activities too limited for adequate service in comprehending the vocational interests of our people to an extent anything like a dignified fullness. It is necessary, therefore, to supplement very widely the matter of the text-book by means which are at hand or obtainable and lend themselves to a comparatively intensive study of sections of the country. In this selective sectional study, the work is probably most conveniently carried on at the time of the special study of the respective groups of states as outlined in the ordinary geography text book, and the selection of the vocational interest to be thus studied will be made with circumspection that those vocations that are the best representatives of the industries of that particular section, and therefore indicative of the chief interests of the people there. In this sort of study, the basic facts of climate, soil, drainage, rainfall, mean temperature, topography, etc., must be intelligently worked out as a starting point for the comprehension of the industrial concerns of production and distribution, and the doings of the people of a given section should appear to the student as a result of determinative causes, instead of, as is true in so much of geography work, as nothing much more to the point than a sort of fortuitous combination of the uncertain elements of chance and happen-so. Thus in taking up the study of hard coal production of Pennsylvania and West Virginia, the mountainous formations of those sections will be rather specially gone into to bring out the history of the mountain making of the region, and its evident effect in metamorphosing the rock formations and coal deposit into the forms in which we now know them. The conditions in which the coal is found will be brought out, the forms of the mines, how the coal is separated from its native beds, how brought to the surface, in what form we should find it when first brought from the shaft of the mine, how it is broken and graded into the condition of its coming to the consumer, how it is transported and distributed, the distances of its transportation from the mines, how the mines are financed, who constitute the workers or miners, what wages they receive, the character of their homes and their standard of living, some of the necessary legal means of mine supervision, samples of the coal that is mined, some of them testifying to its origin by fossil plant forms, the coke industry with samples and the story of its uses, the amount of coal mined per year, and whether it is all consumed at home, the smoke nuisance and something of the attempts to overcome it, the per cent of stored up energy in coal that is lost because of man's failure thus far to discover some effective means of utilizing it in machines, etc., etc.

In like manner, when we take up the cotton districts of the South, let us learn what there is about the cotton section that makes it specially favorable to the production of that plant to the exclusion of other well known crops of the country, how the seeds are planted, whether it is an

annual or perennial plant, what climatic and weather conditions best serve its culture, how it is tilled, in what form it appears on the plant, when matured, its insect enemies and their work and how combatted, how the fibre is harvested, how "gathered in to bins," how put into marketable form, how graded, whither transported for shipment, whither shipped to market as "raw cotton," what it brings on the market, where manufactured, into what forms, something of the processes of that manufacture, who constitute the workers, what wages they receive, their hours of labor, how they live, why the raw material is not worked up where it is grown, why England should be the cotton market of the world when she raises none, what effects upon the soil successive cropping in cotton has and what is done about it, the yield per acre, effects of intelligent farming on crop production, the work of the government in demonstration farming with cotton through the South, samples of cotton plant, bolls, fibre with seeds, goods made from the fiber, the annual output of raw cotton and value of same, etc., etc.

As a third instances, when we take up the study of our own section, the growing of wheat, flax, etc., will be considered with something like a dignified inquiry into the industry that makes our section famous throughout the bread-eating world. We shall learn what are the climatic conditions and soil conditions that favor the production of wheat and flax, how the grain is sown with how much per acre, how tilled, what are the favorable weather conditions for its growth, when and how it is harvested, where and how stored for marketing, the yield per acre, the market price, the annual yield of the state and market value, value of farm lands and cost of production, methods of farming under different soil and climatic conditions, the effect on the soil of successive cropping of wheat or flax and what seems to be the causes for the same, why, in particular, repeated crops of flax must not be attempted on the same field, what is "flax wilt," and what is "immune flax," the rotation of crops, wheat diseases, advantages of diversified farming and into what forms this diversification is being carried, something of the processes of modern milling and the products thereof, where the bulk of our wheat is milled and why there, samples to show the stages of flour making, the bleaching of flour, etc., etc.

It is believed that such selective sectional study of our own country will repay the student far more liberally than will the expenditure of the same time on the choppy and ragged study of some little thing concerning every country on the globe, regardless of its respective fitness for serving any definite and pointed concern of the student, either present or future. The similar, though less complete study, perhaps, of the bordering countries and the principal countries of Europe, Asia, Africa, and what can conveniently be done in like manner with the countries of Africa, will, when supplemented to the prior study of our own country, afford our boys and girls a knowledge of the economic and social factors of man's work on this round earth that will serve them well in their study of geography as a study in the schools.

TEACHING OF GEOGRAPHY NOT ALL TEXT-BOOK WORK.

(Section B—Thursday.)

What has been said in the previous discussion on "The Teaching of Geography Not All Text-book Work," leaves the sense of this paper not only friendly to the use of the text-book in study and class work, but positively insistent upon its use. This attitude is taken in the face of the knowledge that there has come to exist an insistence against the use of any text-book at all in pursuing the subject in the schools of the land. If only the overweening impulse of enthusiasm and the impetuosity of nervous acclaim for the findings of destructive criticism on methods and matter in teaching could be circumscribed and kept within the governable bounds of conservative progressiveness, we should less frequently have to witness the jumps from one extreme to another, almost similar to the erratic response of the mob to its ephemeral leadership, and should be spared the too recurrent experience of witnessing the emotionally dictated stand of persons who, in the spell of critical comment against the *slavish* use of the text-book in school instruction, break away from all restraint, like the engine that has lost its governor, and herald to the educational world their repudiation of the use of all text-books, and the "return to nature" by vesting the formulation of guidance in study in the hands of the teacher in charge. This paper does not share in any such extreme view. It was with regretful amusement that the writer recently listened to the declarations of a teacher in one of the rural schools of our state to the effect that she considered herself superior to the use of text books in her school, that she made her own text books, and urged her fellow teachers to make themselves independent in like manner. When we consider that, for the most part, our text books are written by those whose knowledge of the subject treated is ample and whose experience in educational work and pedagogical learning is far in advance of the average teacher, we must concede that, as a guide to the study of the subject and as an epitome of the matter to be treated, the text-book is wisely placed into the hands of pupil and teacher; and when we remember that so large a percentage of our teaching force has not received the master training of the few in the various subjects of the school curriculum, our decision for the judicious use of the text-book much be most decidedly in the affirmative. The trouble is that but so few accept the text-book for just what it is named to be—only a *text* book. That is, that it does not purport to contain anything like an exhaustive treatment of subject, but that at best, owing to the necessary limitations of the book itself, it can do no more than what it advertises itself to do, that is, furnish the *texts* for the study intended. If teachers will so accept it and will become the searching students themselves which the use of the book as a book of texts requires, we should have less complaint about "the failure of the schools to prepare for the interests of life," and our studies would

be vitalized and vivified with interest-producing factors of real delight to the boys and girls under our tutelage.

The discussion of the foregoing paragraph suggests quite presumably the writer's thought as to the limitations of the text-book for school use. Anything like a complete discussion, even in an elementary way, could not be attempted in less than the full knowledge of the results in its making such cumbersome tomes as to preclude their use at all. Text-book instruction, therefore, must be taken to be as inadequate as the necessarily restricted scope of its treatment is circumscribed; and the teacher who thus looks upon it will be alive to conditions and awake and studious for matter that will serve to supplement the outline of the text-book in a more satisfactory investigation after the interesting truths of whatever phase of the study is under consideration at the time.

This naturally introduces the thought as to what features a good text-book in geography should contain; and while the writer does not presume to "lay down the law" in the matter of text-book content, yet it may be that the mention of a few of the salient features of a good geography text for the use of boys and girls will not come amiss. One of the important features of such an outline book is that it contain good, clear, reliable, up-to-date maps, clear in detail, attractive, properly oriented, well indexed, neatly executed, full in fundamental data, free of unimportant matter, generously large in size—"a thing of beauty" and a work of art and accuracy. Not only such excellent political maps should be a large feature, but also clear and beautiful physical maps should accompany the descriptive text, with relief preferably (in the writer's opinion) shown by shading. Good, clearly shaded precipitation maps, forestry maps, population maps, industrial maps, temperature maps, etc., should be available in the text-book. These latter need not, of course, occupy the general space required for the political maps, which should be one-page affairs, thus requiring that the book should be accommodately large. The "history sized geography" would not seem to offer to the boys and girls the advantages of the big paged text, while the accordion-map is an abomination. With the topographic and climatic study of a region should go a well ordered study of the means of communication, and of railway and waterway transportation. Vocational study should be accompanied with attractive and easily understood graphs of comparative industrial production, distribution, and values, and art-pieces in illuminating pictures should form a large feature of the pages. Helpful suggestions as to usable and obtainable illustrative material for supplementary study should accompany each phase of the work; and the author and publisher should be large minded enough to cite supplementary helps, even though they may not be published or furnished by the publishers of the text itself. In this regard, such bibliograph as may be given should contain the naming of good and useful aids in addition to those particular works that may be published by the company putting out the geography text. The writer pauses here to speculate on the educational results that would probably follow such unselfish regard on the part of the book companies for the welfare of the boys and girls of our country's schools? On the thought of supplementing the con-

tent of the text-book by illustrative material and devices, the writer finds a responsive chord in the closing paragraph of the article by Prof. Salisbury, mentioned in yesterday's talk. He asks: "Would not a larger use of text books and maps give better results? Would it not be better to give relatively more time to enriching, illuminating and adapting the substance of the text-book, and in seeing that it is comprehended—translated into terms of reality—and relatively less to the elaboration of plans which involve the omission or slight use of text-books?"

It is believed that such may be affirmed, and the burden of this petition is to encourage teachers not to consider the text-book a sacred and unchangeable thing, nor as the final and complete word on the subject treated; but to accept its use as a guide to the study in question, necessarily terse, succinct, and in outline, subject to adaptability to the prevailing conditions of time and opportunity at the teacher's command in the particular school under her charge, and demanding her studious, intelligent and industrious endeavors to supplement its matter with illustrative, illuminating and vitalizing materials, devices and field excursions, the use of which so brightens and broadens the pupils' interest and comprehension.

Then, too, let us remember that in our teaching of children, as in our expression of song sentiment, that "There is no place like home." The home state is more to the child than is any other state of the Union. The home land is the best land of all the world. Home folks beat all the folks of folkdom, in the estimation of the boy and the girl. It is usually a safe and expedient thing to do, in instructing the young, or even the elder people, to start in with a new subject by using something that is more or less well known, and "from the known we pass on and up to the unknown." The writer believes that in much of geography teaching this element of interest is not as wisely considered and taken into account as it warrants, and the sentiment of this paper is expressive of the feeling that a great deal of geography teaching is carried on in the subconscious reception of it by the pupil in the light that it is removed from his immediate whereabouts and concern, that it is all about things and matters away off somewhere, and not invested with any special personal concern to him. We somehow fail significantly in "tying up" the concerns of everyday life and everyday knowledge sufficiently well to give the pupil the consciousness that he is engaged in the study of a subject that fairly pulsates with his own kind of life and interest, and we fail to lead him to see that the factors of his immediate environment are connate with those that make the rest of the world, though, it may be, differing in special form to fit the requirements of his peculiar surroundings. This conscious or subconscious perception of the aloofness of the subject-matter from the factors of his own experiences does not tend to strengthen his interest, to say the least, and very likely conduces to his apathetic pursuance of the work. Very likely the first lesson in a given text book is not the best lesson to assign first to the pupil. This will be undoubtedly true if the pupil is to feel no personal part in what he finds there. Here is where the well trained, intelligent teacher will study to fit the subject matter of assignment to the interests of the pupil to begin with, and this

need illustrates the wisdom of our not accepting the text-book, with its own peculiar arrangement of matter, as a sacred and inviolable and unchangeable finality on the study treated of. Here, too, is where the schooling of the boy and the girl is fortunate to find as its guide a well-trained, sympathetic, earnestly zealous and industrious teacher, who is not afraid of *work*, and who feels a deeper and broader, higher and holier responsibility in her work than that of "keeping order" and drawing her pay. The teacher who finds a joy in putting in outside hours in getting about the neighborhood to learn its illustrative topography, to collect or locate supplementary material or objects that may be used to illuminate the subject, who really takes greater personal delight in her ability, through the judicious application of industry and wakefulness, to arouse and nurture in the pupil a like joyful industry in geography and its wonderful story of man's work in the world—the teacher who, during her engagement, has greater concern for such things than for the anticipations of the coming party, new hat, pay day, or four o'clock release, "grapple her to thy soul with hooks of steel;" for she is, to the schooling of the child, "more precious than rubies, and none of the things that thou canst desire are to be compared unto her." We may descant upon the beauties of responsive interest by the pupil under instruction; we may expatiate on the pedagogy of interest developed from things of the known to things of the unknown, but unless the teacher has the "larger view" and sees beyond the boundaries of her own personal concerns into the vista of her charges' educational well-being, we shall have to submit to stage-coach progress in school work, when otherwise we might be reveling in the free, fair flight of the airship. In the teacher of the larger view, in scholarship, training and natural sympathy, we must look for our deliverance from whatever "body of death" may be encumbering our ability to realize the exhilarating aspirations of a coming attainable "Excelsior."

TEACHING OF GEOGRAPHY NOT ALL TEXT-BOOK WORK.

(Section C—Friday.)

In the two previous talks, stress has been laid upon the matter of considering the text-book in geography as an outline guide to the study of the subject, upon the demand in the work for the wide awake, progressive, and well trained teacher who has "the larger view," both of the subject and of her position as teacher, and upon the need of "tying up the outside world" with the class-work of the boys and girls in the school room. In this last particular, it is believed, we fail in a great deal of our teaching. Somehow we, as teachers, start out with the idea that arithmetic, for instances, has to do with the manipulation of figures and numbers as provided for within the covers of the text-book. The pupils under our charge fall into the attitude of thinking of the study as limited to school-room exercise secured from bothersome complications set down in the book. Before they shall be able to decide whether they have been working the given task correctly, no matter how many similar tasks they may have just gone through, they must turn back to the answer pages, where according as they find their result tallying or not tallying with the answer set down by the makers of the book, they will find the evidence of their having been on the right track or on the wrong one. The teacher and pupils carry on several days work in lumber estimation, for instance, and the class reaches a state of facile solution of the set problems, but very likely with but a faint notion that their work is an expression of everyday life about them; and if they were, at the close, taken down on the street to find out the value of some farmer's load of mixed kinds of lumber, they would feel, at least, that they had been given a problem containing rather different elements from those of the school room. In like manner, we often learn, in the school room, to find very satisfactory results in interest work; but if actually handed a real promissory note over the counter at the bank, with the request by the banker that we find the amount still due on this problem in partial payments, we should be taken with a mild attack of palpitation of the heart. Likewise we do our high school work for a year in physics, without "tying it up with the outside world" very closely, and leave the study in June with the feeling that physics is a study of turmoil and complications of the classroom, and without being able to see the demonstrations and illustrations of the principles of the science all about us in the community. Botany, in like manner, becomes to us a year's assignment in a special room with microscope and dead specimens, instead of an investigation into the biological beauties of our immediate environment. The contention of all this is to the effect that we fail so greatly to carry the everyday life of our community into the class-room and laboratory with us. We coax ourselves to be satisfied if we cover the discussions of the text-book, and by a careful and persistent recurrence of drill, drill, drill, finally so impress the *memory* of our wards as to see them gloriously able to pass

with credit the stipulated questions of the state school board of examiners. But there's just "the rub." Drill and memory, drill and memory! This, though not the vociferous slogan of our procedure, yet characterizes very much of our deliberate class-room work. Under this mode of action, the subjects taught take unto themselves the nature of set things of the books, and our pupils indicate their knowledge of the subjects by proving themselves capable of retaining in their memories these set things that "the book said." The more we frame our attitude toward taking the text-book as a book of texts for our guidance in teaching, and away from looking upon it in a fetish-like worship, we shall cultivate the leadership of the real teacher within us the more, and through it shall imbue our instruction with the lively interest of things and doings about us, thus vitalizing and vivifying our teaching with understanding of the living and moving elements of our pupils' surroundings. We shall be better inclined to "Go forth under the open sky" and listen to some of the "Sermons in stones," to be retold to our pupils as a very lively portion of their various studies in school.

The theoretical discussion of the matter of taking the pupils of the school out into the fields, where they may "see things" as they are, is, however, rather more conveniently proposed than followed in actual schoolwork. Perhaps such procedure would be the ideal, but we who work every day in the school-room, are cognizant of many, many hindrances to carrying out such a policy very extensively. Our weather conditions during much of the school year does not favor extensive outdoor work, other classes demand our time and attention for the day, the arranging of such leave to the pupils during the school hours of the day is difficult for the most part if not prohibited by circumstances. Some of such outdoor work *can*, however, be done, and as much as can be done should be done. Even extensive outdoor work in any given community, though, would find its limits of illustrative matter rather circumscribed at best. Doing some violence to the old saying, we may declare, however, that if Mohammed cannot go to the mountain, then the mountain may be brought to Mohammed, and the point of this contention is that Mohammed really ought to see the mountain if possible. We may assist to this desirable end in many ways.

In the first place let it be taken as the statement of belief of the writer that in much of our geography teaching, we literally act out the statement of the Good Book, that "The first shall be last and the last shall be first." I deem it entirely presumable that the writer does not take a unique stand in believing that in the class use of our text-books in geography, we present first what should be presented last. The descriptive lessons of the text are for the most part but summings-up of related matter. We thrust these succinct resumes into the hands of our pupils as the first attack that is going to be made on the subject or phase of it under discussion. They have perhaps had no previous presentation of interesting data concerning the region now to be treated or industries to be spoken of. They themselves feel no interest in the text-book assignment beyond that meeting requirements at class time. Would it not, as a rule, be better that, before the pupils take up the text on the subject of discus-

sion for the day, they be taken through some sort of preparation for a more particularized or more narrative presenting of relevant matter. The child, as we know, dearly loves a story. Our instruction of the child should contemplate the child as a child and should proceed in his instruction from the basis of his natural responses. In taking up the study of a section, therefore, would the child not feel a more personal and keener interest in what the geography text has to say about a city or section if he came to the text with a fund of interesting knowledge concerning that city or section? In the affirmative belief on this suggestion, the writer feels that we should cultivate the use of good geographical readers in the school to precede or accompany the text-book assignments. There are several series or parts of series of such readers already on sale. Besides these series specially designed for supplementary reading in geography, there are many single books the matter of which, or selections from which, may be most profitably used in this way; and which may be found suitable for any given grade in the school. The earnest and progressive teacher will be studious to find what books and stories may be so used.

If we were all so situated that when we find the mention of given industries in a city or section under study, we could take our classes out to view their working out in the community, our classes would be most fortunate in the profit of gaining a first hand knowledge of the things studied about. None of us is so situated, however; but if we are to raise the results of our teaching about the plane of memory drill, we must make the best substitute for actual observation and first hand experience as we can.

If we cannot all behold the actual glories of the Grand Canyon, it will be something to have before us, as we come to its reference, a large wall picture of a section of its stupendous grandeur. Perhaps many of us have never seen and may never see the sublimity of the real Selkirks, but a few good pictures of portions of them will help us wonderfully to realize something of what they are. Not many of our pupils may be privileged to see a field of growing cotton, of hemp, of sugar cane, of tobacco, of rice; but excellent pictures of all these may be obtained for study when the topics come up in the lessons. Our concepts of things come through the senses. We learn about things by seeing them, handling them and thus knowing them. Here models of valley, plains, mountains, volcanies, etc., procurable for school use, most delightfully unfolds the otherwise disturbed conception of the child's mind relative to these features of topography. Samples of materials, and the story of their production and manufacture assist most significantly in enlarging the comprehension of products and industries from what, so far as the succinct mentioning of the text goes, would otherwise remain as a percept only of the most hazy and general nature. We know a thing only by knowing its details. Let us help the child to learn some of the important thing concerning the vocations of man by assisting him to obtain an insight into some of their details.

Books descriptive of the uses of materials in the arts and industries, and telling something of the procedure employed in their manufacture, are

obtainable as supplementary helps to further study into the vocational activities mentioned in the text. Good stereoscopic views of many of the steps in the arts and industries and of places and things of interest are obtainable; and these, with a few instruments for their better use, may be made a vast help to the child in his better comprehension concerning "what the book says." These views should be carefully selected and classified; and the teacher should indicate in writing on the back their illustrative subject matter, and what of value to the topic the pupil is to see in his inspection. The Perry, Brown and other excellent, though cheap, pictures, offer very profitable assistance to a class in this way for almost any subject in his course of study. If the teacher be alive, awake, industrious and a student, as all teachers should be, she will find the liberal perusal of magazines repay her by offering discussions and pictures that will often prove invaluable in her work. The making of a geographical scrap book of illustrative clippings and pictures has, in the writer's personal experience, proven a source of interest, illumination and inspiration. It is also surprising how much assistance in geography may be secured through the collection of illustrated railroad guide books that are obtainable from the various companies. The writer right here recalls one such folder in particular which he has that shows the topography and falls of the Niagara much better than is shown in any text book used in the school.

After the pupils of the ordinary geography class has passed over all that is said concerning the petroleum industry of Pennsylvania and Ohio, when he studies about those states in his text, what does he really know concerning the processes and products of that industry, and what does the mention of it bring to his mind that is definite or invested with meaning to him? Would it not be a good thing to make an exhibit of the products of the industry in conveniently small bottles, for instance, and prepare a story of their manufacture for the supplementary study of the pupil when the subject is taken up in the text? It is usually a matter of great interest and surprise, not only to school pupils, but to older people as well, to learn how many direct products and "by-products" of the petroleum industry are made, and the story of the production, transportation and refining of the crude oil always proves interesting and welcome study in the class, and the pupils are thus left with some sort of intelligent comprehension of what the oil industry is.

In like manner, the writer finds that his exhibits of the milling of wheat, the making of steel pens and steel needles, the manufacture of linen thread, of cotton thread, the silk making industry, exhibits of common fibers that go into the manufacture of the textiles, an exhibit of the cocoa industry, etc., etc., all assist greatly in illuminating the study of geography, and leave the pupils with a feeling that they really have an intelligent comprehension of these matters concerning which they would be but "poor indeed" in knowledge, had they to stop with only what the text-book can give them. With these collections, must go a story of their source, production, uses and manufacture, which, in the writer's schools, are pre-

pared, for the most part, in the form of typewritten sets of home-made pamphlet books.

Work of the above mentioned kind, taken in connection with the progress of the study in the text, will serve mightily in widening and deepening the pupil's conceptions, and to lead them into the approach, at least, of a "working knowledge" of the subject. No, most positively, geography-teaching is decidedly NOT all text-book work.

Note.—At the close of the discussion the speaker presented for examination several collection exhibits which he is using in his schools in geography work. Their uses in the class work and the manner of their collection were explained.

DEPARTMENT OF
COUNTY SUPERINTENDENCE, AND
SCHOOL ADMINISTRATION

ANNUAL MEETING OF COUNTY SUPERINTENDENTS HELD AT MINOT DECEMBER 25.

Called to order by Supt. Stockwell. Roll call:

| | |
|-------------------|-----------------------|
| Adams | Frederick Davis |
| Barnes | Minnie J. Nielson |
| Benson | Effie D. Hoadley |
| Billings | Joseph A. Kitchen |
| Bottineau | P. E. Christiansen |
| Burleigh | C. L. Vigness |
| Cavalier | B. E. Groom |
| Dickey | G. M. Lovell, Mrs. |
| Dunn | C. L. Melby |
| Eddy | Ellen M. Roach, Mrs. |
| Emmons | Henry H. Hanson |
| Foster | Mary J. Cain |
| Grand Forks | Helen J. Prindeville |
| Griggs | I A. Kampen |
| Kidder | Orra L. Hurd |
| LaMoure | Laura B. Sanderson |
| Logan | R. A. McCalmont |
| McHenry | Dalton McDonald |
| McIntosh | E. T. Clyde |
| McKenzie | Nora C. Byrnes |
| McLean | H. C. Loftsgaarden |
| Morton | W. F. Lorin |
| Nelson | B. O. Skrivseth |
| Pembina | I. A. Burley, Mrs. |
| Pierce | Lucy B. Seiple |
| Ramsey | John A. Haig |
| Ransom | W. G. Crocker |
| Richland | F. R. Barnes |
| Rolette | E. M. Sherry |
| Sargent | Tene McCarten |
| Sheridan | C. E. Eberly |
| Stark | Lloyd Rader |
| Steele | A. G. Miller |
| Stutsman | Fred M. Wanner |
| Towner | John Gang |
| Traill | B. A. Wallace |
| Walsh | B. B. Wells |
| Ward | E. G. Warren |
| Wells | Maude T. Regan |
| Williams | Martha P. Tatem, Mrs. |
| Mountrail | Bessie M. Kane |

The meeting was addressed by Supt. Stockwell, who took for his theme The Rural School.

On motion of Mr. Lorin the matter of business was taken up at this point. Carried, all voting aye. On motion of Supt. Lorin of Morton county, Supt. Haig was elected a member of the nominating committee of the general association.

Nominations for vice president were called for. Supt. Vigness was nominated and declined. Supt. Helen Prindeville was nominated and unanimously elected vice president of the county superintendents' section of the State Association.

On motion of Supt. Tatem, Supt. Dalton McDonald was elected a member of the executive committee of the general association.

An invitation for county superintendents to meet the school law commission was extended.

The State Superintendent called the attention of the county superintendents to the meeting of superintendents to be held at Indianapolis in March, 1910.

Papers.—"The Necessity of Improved School Environment." Supt. Barnes, Richland, 10 to 10:30. "How to Create the Proper School Spirit Among the Patrons of the Rural Schools," Supt. McDonald, McHenry, 10:30 to 10:45; "More Money Must be Spent for Rural Schools and in a Better Way," Supt. Haig, Ramsey, 10:45 to 11.

Discussion.—Superintendents called upon by counties to report progress and conditions in their respective counties. Counties not responding: Benson, Cass, Dickey.

Adjournment until Friday, December 31, 1909.

Supervising deputies present from McHenry, Grand Forks and Richland.

FRIDAY, DECEMBER 31.

Meeting called by Supt. Stockwell at 9:30.

Paper by Supt. Skriveth postponed.

"Proper Course of Study for the Rural Schools." Supt. Wallace, Traill county, 9:30 to 9:55.

"Need of Special Training for the Rural School Teacher." Supt. B. O. Skriveth, Nelson, 9:55 to 10:05.

"Better Supervision of the Rural Schools. In What Does Proper Supervision Consist?" Supt. Wanner, Stutsman county, 9:10 to 9:15.

Discussion—Superintendents Sherry, Miller, Loftsgaarden, Nielson, Tatem, Vigness, Haig, Clyde, Seiple, Lovell, Hanson, Christensen, Deputy Barton.

F. B. HARRINGTON,

Secretary pro tem.

HOW TO CORRECT THE PRESENT DEFECTS IN THE RURAL SCHOOL.

SUPT. BARNES, RICHLAND.

THE NECESSITY OF IMPROVED SCHOOL ENVIRONMENT.

The theme of this paper assumes that school surrounding need a change. Doubtless all present will agree that they do; but since the number of North Dakota educators is almost a negligible quantity among the state's 100,000 voters, and possibly 51,000 differ from us, for the sake of clearness and argument, state the proposition alternatively, thus: Either the country schools' environment needs improving or it does not need improving. One of the other of these conditions must be absolutely true. And since every county superintendent has doubtless discovered that some citizens subscribe to the negative alternative, let us examine it as worthy of serious attention. Is it true that the environment of country schools in general does not need improving?

One of the first schools visited by the present superintendent of Richland county possessed a windowless entry. Until one opened the door this little room was absolutely dark. Huddled therein were unclean overshoes, winter wraps and dinner pails. The floor was sloppy or icy. Upon proceeding one found a school-room the windows of which one side were curtainless and upon the other provided with only ragged shades. Some badly whipped and torn charts constituted much of the pictorial adornment of this shrine of learning. The old stove didn't heat up right.

At a nearby farmer's, where we got dinner, things looked better. Although the house stood in need of some paint, they had a good grove, the buildings were substantial, living-rooms were neatly kept and it looked inviting, like someone's home; but no one had seen as yet a vital relationship between the condition of the school and the house to suggest any need of a changed environment in the school.

At another school a good-sized room combined the functions of entry, coal-bin and wood-shed. The floor was littered and shamefully dirty. Much of the old plastering of the walls and ceiling had been knocked off, giving forth the impression of an abandoned house. Advancing into the school room proper, one found appointments most meager. But when you talked to the director in charge, a stolid, well-to-do farmer, you heard a positive conviction that the condition of the building was all right. One may assume that, in ancient history, an old building had been fixed up into a combination entry plus fuel-shed, and a new school-room added.

But why shouldn't one regard the wood-shed as all right when the entrance almost invariably employed to one's own home was through the back-door shed? And as for knocked-off plastering, that in this practical age was of no use anyway, and might as well be off as on. It would seem that the time has not yet come in the mental life of some men when they will apprehend that country school children need surroundings that cultivate an appreciation and love of the beautiful in life.

When they voted on consolidation in one district recently, objection was made to the proposed change on the ground that the old folks had been educated in a one-room school, here or in Norway; such a school had been good enough for them and ought to be for children today.

Now, these instances of belief in the proposition that country school environment does not need improving are extreme; but in my opinion they indicate the principal seat of the difficulty in any campaign to advance country school conditions. Hence mention of them seems timely. In a convention of earnest advocates for better school conditions, it may seem absurd to dignify by any consideration the proposition that, country school environmental conditions need improvement; but one meeting, Mr. Patron, Mr. School Officer or Mr. Tax-Payer-with-no-children-in-school, on the farm ten miles from town, is liable to be brought forcibly to a realization of the fact that people do subscribe to the negative alternative of our proposition, and do think, if they think about it at all, that the country schools are all right, for all practical purposes, as they are.

Grown-up people's low ideals of the worth of an attractive school to a child, the very common absorption in only things which promise quick money returns with profit to men's own pockets, a common prejudice in some farming communities against any marked change, fear of added expense for the schools, and limited vision of possibilities for school betterment are various factors in holding back the country schools. From citizens with such ideals, such conservatism and such horizons sometimes come school officers who levy taxes and control expenditures. The director of the school first referred to is respectable, conscientious and interested in schools; so were the other individuals mentioned; but they seldom talk with people whose ideals differ seriously from theirs on school matters, they read little, and only rarely do they thoughtfully observe school conditions beyond their own immediate neighborhood. A leading farmer in a certain country district of North Dakota has told me that he has never read a single book clear through. Such men are apt to become constitutionally opposed to any change unless it reduces their own immediate expenses. The view of too many is unblushingly selfish and individualistic. Such expressions as "public spirit" and "collective advantage" range off into fields of thought absolutely meaningless to such men. And yet they mean well. They may even be deeply religious, impelled perhaps by selfish motives of fear for their own and their children's hereafter—not practical, mundane love to God or man or school children.

How can we reach such men and women? How can we get them to make our ideals for the country schools their very own? How can a large majority, whose hearts are all right, be brought out of money narrowing, gross but honest selfishness—because they were not educated better, and mistake their conduct for good business—to a broad-viewed public-spirited, patriotic ambition after better things. How can we get them to keep at it, even though their own kith and kin have passed the fourteen-year limit of the compulsory education law? How can we make them see something of a simple proportion like this: The flail is to the self-binder as the old style school is in places to the consolidated? How

can we get them to resolve to buy no more improved machinery unless their children be given school conditions equally improved?

I wish that I could solve these problems, but alas, I cannot. Luckily, however, I can proclaim, like John the Baptist, and hope, that the one who comes after me on this program, whose topic covers these questions, will show us the remedy. As for myself, the field of work is so vast, the stones to be removed are so many and so heavy, and the disposition of veteran directors to resist changes is so prevalent that I do not see how one can accomplish much definitely in a short time. If we could remove prejudice against change, and arouse an interest commensurate with that which men have in business, the environment of country school children would be improved speedily.

Nevertheless forty-six county superintendents in North Dakota can do a great deal if they set their work in line with certain definite aims. A wise thing suggested by North Dakota's Superintendent of Public Instruction, Mr. Stockwell, is that we settle upon one or two definite things and keep right after them for at least one school year. Thereby some actual results can be secured. With this in view let us examine the positive alternative of our original proposition, viz., that the country school's environment needs improvement. In order to make progress here it is best to decide what we mean by environment. A moment's thought will show that this term can be taken in a very broad sense. It may mean one's material, physical situation, or it may include also his spiritual surroundings. It may include everything outside his own subjective self. Let us investigate its limited or physical meaning. In this sense a school child's environment consist of, first, a house and its interior; secondly, the building's exterior and its yard; and, thirdly, the adjacent country fields and roadsides. Does this physical environment need improving?

Now, with due apologies for my cumbersome mode of thinking, let me say that my way has been to draw up an outline for observations covering several heads and to make use of it in school visitations. If I omit the outline, I am surprised upon returning to my office to find how few are the definite impressions which remain with me of each particular school observed. Running over my "Record of Visits" under the guide of this outline I gather the following observations:

One school contained twenty-five children. They were over-active and wiggley. The teacher worked herself too hard. Everything was at too high a tension. I made frank notations and at recess diagnosed the environment with the teacher. It developed that bad heating and ventilation was probably a cause of the wiggling and tension, a possibility which had never occurred to the teacher. Did this not indicate a need for improved school environment? Why would not a quiet campaign having for its watchword: "A good thermometer for each school," afford a cheap tool for improving this item of school environment? An intelligent teacher who actually obeys the plain law about teaching hygiene should learn the need of a well distributed temperature. After scientifically learning with a thermometer the true state of facts, she could show patrons how Johnnie's little woolen-clad body becomes too tender to North Dakota outdoor cold when he has to endure 85 degrees of steady heat from his

station near the school house stove, and that too at the very time when Mary may be catching cold, and certainly is very uncomfortable, where she sits with her back to the north wall of the room in a temperature of 50 degrees. A teacher should at this point be prepared to show that a stove jacket would cost but little. She ought also to make a request for permission to buy some stove blacking which she would use on that type of ugliness, the old style school stove. I have sometimes wondered if it would not be a good business proposition for the manufacturers of some of our improved systems of heating and ventilation to make a Christmas present of a good thermometer to every school teacher where the heating system of our fathers is still employed.

County superintendents visit schools where the only ventilation possible is through an opened door. Stormwindows, if on, often are screwed to stay tight all winter, and are without vents. Possibly the paint on the inside windows has stuck them fast, preventing one from raising a window on one side of the room and lowering another on the opposite further side, that fresh air and more active mentality may be secured. A teacher in such faulty environment receives little sympathy from me. When manual training comes to its own, every girl teacher will know enough to fix a window, and its curtain, so that they will work. She ought to have grit and gumption enough to do so now.

Schools exist where children's eyesight is endangered by the direct sunlight shining upon the white pages of their books. The existence of such an environment is a social sin. In it the teacher, school board and county superintendent are joint high-sinners. Why not have good wide, heavy, green shades hanging where none are now, or in place of the narrow, light-yellow ones sometimes seen?

When I notice a ceiling smokey, or with plastering which shows where lath extend underneath, a chance arises to place before some teacher an ideal of better things through a calsomined tint of light color above and deeper coloring on the side walls. Calsomining or whitewash can well be employed also to cover markings on outbuildings and thus possibly do something towards arousing in some adolescent mind a decent sense of shame.

What shall we do when we see blackboards ranging high above the reach of all whose feet rest upon the floor, and that, too, possibly, when the lower line of the blackboard is so high that six-year-olds can barely reach to write their words just above the chalk-rail? One good thing to do is to "highly resolve" never to let another school house be built in one's county with that environmental mistake inflicted upon its walls. The proper effect of such a resolution may mean special trips to explain to both school officers and carpenters themselves the imperative need of a specially low wainscoting unlike that customarily made in men's dwellings.

From these observations we discover various needs existing for improvement in the physical environment of country schools. Let me mention a few possibilities further.

Magnificent, heavy, cloth-mounted maps of the United States may be secured gratis for one's school by arrangement with any one of the North

Dakota delegation in congress, each of whom has a quota for free disposition. Similarly one may obtain excellent wall-maps of North Dakota. Assuming that they are needed, why not arrange with teachers so that every school may have one if the teacher will make request to either the county superintendent or the congressman directly? Their appearance on school-room walls would tend to remove some of the need in an artistic sense for an improved school environment.

Each school is supposed to have an unabridged dictionary. For about \$1 school furnishing houses will supply a wall-attachment which affords an excellent arrangement whereby a dictionary is always out of the way and yet ready for use.

You have seen children sitting at desks which compelled them to hold books six or eight inches from their eyes. Such children are inviting headaches, damaged eyesight and the use of spectacles. To suffer such conditions to continue constitutes another environmental sin charged to our joint account. Do we not all agree that each child should have a single desk and seat, with proper distances provided so that the book need not be less than fourteen inches from his eyes, and both feet can rest squarely upon the floor? If the desks need changing, should the county superintendent be content to mention it to the teacher? Should he not see the school board about it personally, armed with data for securing changes promptly and at reasonable cost?

Where a new coat of paint will brighten up the walls, I think that the county superintendent himself should see the school board about it. But in this connection one expression of the North Dakota law comes to mind, viz., that we are to teach respect for honest labor of any kind. One excellent way to inculcate such respect is for the teacher to show by example that she herself is not above doing manual labor. Any teacher would be apt to rise 100 per cent in the estimation of her patrons if she would offer to do the painting herself, after the analogy of the arrangement common among landlords and tenants, so well known among farmers, in which the landlord furnishes the material, such as fencing or lumber, and the tenant does the needed work.

It is true that teachers are not hired to be painters, calsominers nor even janitors, but any teacher should feel that she would, by hook or by crook, have things presentable and respectable about her or else get out of the teaching business.

A school social, one each year, can be emade to relieve the need for improved environment in the common lack of an attractive book-case. A book case should not look like a cheap kitchen cupboard. It might well be sectional with glass doors. I should like to digress upon what the book case should contain. With your permission I will say only this; that the Department of Agriculture at Washington furnishes free a Monthly List of Publications. Many of these, especially the Farmers' Bulletins, to be had for the asking, cover topics which should be brought before the attention of country school boys and girls. A book case can be supplied with such reading without asking the school board to spend any money.

In addition, the Secretary of Agriculture's Year-book can be had gratis. Several copies might be obtained from one's congressman, and the teachers notified that they are available to schools that will make use of them. I am trying to have teachers interest the older boys and girls to take such volumes home for evening reading, hoping that the parents themselves will thereby become more interested in improved farming methods.

As a means of improving the environment one may obtain beautiful colored pictures about six by nine inches in size, of various birds which frequent one's country. By consulting Dr. Bell of the Agricultural College at Fargo, one may secure a list of such birds for fall, winter and spring observation. Why not have both such a list and a number of corresponding pictures posted in the school-room?

A school social can be made to provide needed funds for one or more wall pictures such as are shown in the Turner Art Exhibits. The lack of a suitable pictures rail on the wall of school houses furnishes one more instance of the need for improved school environment if respect and love for the beautiful are to be developed in country schools.

When one sees the teacher take a furtive glance at her little watch and then notices that neither a clock nor a program are in evidence before the scholars; it furnishes further instance of needed improvement. Since summer-time vandals might destroy a valuable school clock, why not encourage teachers to invest \$1.00 in an alarm clock of their own, and then instruct them to have it in plain sight of all, at the same time having the daily program posted so that all may know that there is a time for everything and that everything must be done on time?

A limited amount of experience makes me believe that any school board will pay for a water pail, towel rack, toweling, soap and wash-basin if the teacher will assure the board that it is needed and will be used. Certainly many schools can find use for them.

These various instances point out existing needs for improvement in the interior physical environment of country schools. The list is not exhausted, but far more is suggested than can be accomplished for many years to come, and for the prime reasons which I pointed out near the beginning of this paper, as for instance a common indifference and skepticism among country people themselves regarding the value of needed improvements.

Turning to exterior surroundings of country schools, we find things deserving attention. If the county superintendent actually believes that a country school building needs paint or shingles, is it not a wise move to see the board about it one's self? Possibly a stable is not well equipped for winter use. In nine hundred and ninety-nine times out of a thousand at least one of the outbuildings is in wretched condition. Early this winter I purchased a coiled spring about 15 inches long, at a cost of 15 cents, and induced a school patron whom I met in the store to agree to fasten it to the boys' outhouse door in much the same way as such springs are commonly fastened to screen doors. He also agreed to impress upon the teacher the need of seeing both that this door was tightly closed every night and that the out-building was in decent condition every

morning, especially near the bottom of the door where snow is apt to be kicked in and jammed against the door-frame so that the door could not work properly under any condition. The children too must learn to have the door swing freely. After two or three weeks I learned that the plan works all right, but that the spring could well be stronger than than commonly used for screen doors. Why is there not need in this matter for environmental improvement? And at what infinitesimal cost per capita!

If one wishes country school surroundings to be as attractive as they are at home, or more so, much opportunity can be found for work in the school yard, but not much can be accomplished until it is properly fenced. Fencing should preferably be of woven wire and about four and one-half feet high. The gateway should be so constructed as to exclude calves and sheep. The yard should preferably include three acres, but two acres will do. Certainly one-half acre is not enough. In order to beautify North Dakota prairie school grounds, wind-breaks should first be provided; hence the need of a yard so spacious that snow-drifts caused by wind-breaks will not injure shade trees nor shrubs. Such wind-breaks should of course be placed upon the north and west sides of the yard. After they have obtained respectable proportions and the proper fencing has been provided, no great reason appears why, with reasonable care, school yards cannot be improved marvelously by ash, maples, boxelders and such shrubs as the hydrangea, lilac and syringa?

With a view to improvement of school yards I believe that a circuit could be arranged at which an expert from the Forest Service of the Department of Agriculture at Washington would appear before North Dakota school officers at various annual meetings throughout North Dakota. Correspondence to this effect has been encouraging.

A country school boy's or girl's road between home and school is part of his school environment. Does nothing in the condition of our highways and roadsides need improvement? By writing the Office of Public Roads at Washington teachers may secure for the asking bulletins which children in the upper grades may study and take home for their parents to read. Such bulletins show the radically bad present method of road construction and maintenance in North Dakota. It is unscientific and ridiculously wasteful. It results in long lines of weeds bordering wagon tracks and making travel there almost impossible during winter. One great objection to the consolidation of schools is that public highways are not in good condition. Surely here is need for an improved environment.

One thing along the roadside we should not forget, viz., the occasional sight of nature's old prairie flowers. Tell me they are more beautiful than any artificial arrangement shown at great expense in city parks. When North Dakota country school children learn to know as their friends the different flowers and grasses of our fields, they will appreciate and love one item of their physical environment standing in need of no improvement.

We noted at the beginning of our consideration of this topic that one's environment is not only material but spiritual. I cannot enlarge upon this

phase, as the spiritual elements will be covered in the treatment of subjects following mine. Certainly the motives and ideals of grown-up country people, the qualifications, moral and religious life and professional ability of teachers, the subjects of study which country children must pursue, and the kind of supervision which they receive all enter in as elements of their spiritual environment. In both its physical and spiritual phases, I believe that improved school environment need not wait from fear of appreciable added expense. Expense of schooling may well be estimated by *services rendered*. In Richland county the actual cost during the past school year ranged from twenty-one cents to fifty-three cents per pupil per day, with a county average of twenty-eight cents per pupil per day. In the purely country districts—those with village or graded schools—it was thirty cents; in the special districts, including one village and three cities, only twenty-four and one-half cents, for Sheyenne Consolidated School (which employs two teachers in one building for a purely rural district six miles square, and uses three transportation wagons), it was approximately thirty cents per pupil per day—not nearly as much as in two or three of the purely country districts which operate several one-room schools separately. In those it was thirty-nine, forty-nine and fifty-three cents per pupil per day. Improvements in heating and ventilation, calsomining, good school desks, adequate blackboards, free wall-maps, dictionary-holders, free reading matter from the Department of Agriculture or Agricultural College, lavatory conveniences, well-kept out-houses, wire fencing, wise tree and shrub planting, good roads—all these can be enjoyed without raising the mill tax one point.

Indeed some of the suggested changes would result in financial saving. But aside from that, and simply from the standpoint of services rendered, it is reasonable to assume that such improvements in the school environment would increase the incentive to full and regular attendance until two things would result; first, country school education would stand for higher culture and more efficiency in practical affairs, and, secondly, the cost of maintenance divided by the greater aggregate daily attendance, would give a smaller quotient or cost per pupil per day.

But people do not believe this. I yield to those who will show us how to proceed. May the time come speedily when all country schools shall be so organized as to supply environmental needs that will most truly further the best interests, material, intellectual, aesthetic and spiritual, of all school children in every country community.

HOW TO CREATE THE PROPER SCHOOL SPIRIT AMONG THE PATRONS OF RURAL SCHOOLS.

DALTON M'DONALD, SUPT. OF SCHOOLS, M'HENRY COUNTY.

In the discussion of this subject, I shall endeavor to indicate as clearly as possible, the school spirit which obtains in the state; the reasons for the present conditions relative to this subject, and an explanation of some of the agencies which have a tendency to improve the prevailing school spirit. At the beginning, it is well to consider what the character of this spirit is. I do not believe there is any body of men and women so well qualified as this one upon the general attitude of the people of this state toward the public schools.

You will no doubt agree with me, when I make the statement that the general attitude of the people of the state is good. That, generally speaking, there is a lively interest in schools and school work, and a disposition on the part of the people to support them. The manner in which the people tax themselves is an indication of the value they place upon the schools. An examination of the school tax rate in various districts reveals a willingness to pay liberally for good schools. The growth of the school system in this state, the increase in enrollment and attendance, in the number of schools, in the substantial buildings and equipment, in courses offered and general development, is the best evidence of the healthy school spirit which prevails. The readiness with which additions are made to buildings and equipment, and teaching force, is further evidence that the people of this great commonwealth desire the best schools for their children.

While the school spirit on the part of patrons and citizens in general is good, there are many communities more or less indifferent to the welfare of the school. There is perhaps no community where the general intelligence relating to school matters and the bond of sympathy between school and home may not be improved. There is, too, a disposition on the part of many parents to leave the education of their children entirely to the schools. They recognize the special preparation of the teacher and give into her hands the entire responsibility of training their children. In this age of specialization there is a tendency for the father to pursue his special line to the exclusion of all others. The division of labor which has gone forward with such rapid strides during the last half century may to some extent account for many parents placing the entire responsibility for the mental development of their children upon the schools, expecting the teachers to do the complete work of education.

There is indifference, too, on the part of many parents for various reasons, and it is too often the practice to let well enough alone, and to say that the education I received is good enough for my child. But there are few districts in which there are no parents who have an intelligent appreciation of the value of good schools and a hearty interest in them. There are, however, some districts in which the number of such parents is

very small, and in some cases even the directors are careless or indifferent or lack the thorough understanding necessary to the best management of the schools.

It is our purpose, therefore, to suggest some of the agencies which have a tendency to improve these conditions. The school officers' meeting is one of the strongest factors for the awakening of the indifferent and the raising of the general appreciation of standards in education. Every school officer has a certain sphere of influence in his community and will in some measure arouse his friends and inspire them with the higher ideals he may have received in such meetings. It is essential, too, that the school director have a good and enlightened school spirit, since he above all others determines what the school shall be. The difference in his views makes the difference between poor schools and good progressive ones.

Contests of different kinds serve to bring people into touch with the school and serve the purpose of improving the attendance of the children. The corn contest and similar ones, suggested by our Agricultural College, bring the farm life and school life nearer together. The one lends interest to the other. The attention and interest of the father is aroused in the work his son is doing through the influence of the school. He has a kindlier feeling for the institution which encourages his boy to be industrious and to try to accomplish in competition with others.

Educational meetings of various kinds held at the school house will call attention to the school and lead to the discussion of school topics, call them to mind and arouse interest in them. In this connection I wish to call attention to a circular recently issued by the University of North Dakota, which is a compilation of lectures delivered by members of the faculty upon a large number of subjects, many of which are well adapted for educational meetings. The University offers these lectures on very reasonable terms, the entire charge being \$12.50. The small communities as well as the larger ones can afford to take advantage of these lectures. It seems to me that such a force for moulding of public sentiment can not be overlooked.

Teachers' meetings are a fruitful source of interest and enthusiasm, and when well attended by school patrons, serve to arouse a feeling of pride in good schools and give the public an intelligent understanding of them. The school garden has proved its helpfulness in some places in interesting the parents in the school and making school life more pleasant for the pupils.

A further agency for the improvement of the conditions mentioned is parents' association. Two years ago the Department of Women's Organization was added to the National Educational Association. The organization began with the meetings of mothers with kindergarten teachers. The meetings were found to be so useful that they were extended to the grades and finally to the high school, and became known as Mothers' Clubs. The National Congress of Mothers maintains a state organizer in several states and has organized hundreds of these clubs. "Their object is, according to Article II of the constitution: 'To bring into closer rela-

tion the home and the school; that the parents and teachers may intelligently co-operate in the education of the child." Each association is provided with helpful literature and suggestive programs by the National Congress. Fathers became interested as well as mothers and Parents' Associations have been formed.

The chief aim of such an organization is to promote co-operation between the school and the home, to bring the parent and the teacher into a closer understanding of each others' difficulties, and an appreciation of the work of the other, to study the problems of the school in relation to the home. Parents do not go to the schools often and therefore can not know what is going on there, nor be interested in matters that come to their ears merely by chance, or which they pick up now and then from the remarks of irresponsible persons. Frequent misunderstandings arise, the teacher thinks his work unappreciated because it goes unnoticed, the parent doesn't like the teacher on account of some remark made to children when she is tired and nervous after a heavy day's work, a remark or an action perhaps which does not at all represent her true worth. An acquaintance of parents and teachers such as may come through the discussions in parents' meetings, will obviate many of these difficulties. In our educational system much energy is wasted for the reason that teachers, principals and superintendents tell the children what ought to be told to the parents. If the same energy be used in explaining to parents the necessity for regular attendance, and bad effects upon the pupil and the school of irregular attendance, of the necessity for cleanliness, ventilation, etc., our effort is likely to produce better results. In short, if the parent understands what the things are that are in the way of progress of his child, he will help to remove them.

In addition to the services mentioned, Parents' Associations give attention to the sanitary conditions and moral and social life of the pupils. In some places they have raised funds for pictures, for a piano, and also for manual training and domestic science equipment.

The Consolidated Schools have been in operation in many places in the state for several years. They have safely passed the experimental stage in many instances, and have come to be regarded as a substantial addition to the school system of the state. Observation of a number of these consolidated schools proves that the attendance in such schools is increased in numbers and in regularity. The aggregate days of teaching in these schools is much larger than in a number of the small schools in the same district. Children stay in the consolidated school until they reach higher grades than they did in the small country school. A comparison of some of the consolidated schools of the present with the schools that were taught before consolidated shows that a much larger per cent of the pupils complete the eighth grade from the consolidated school. These are indications of a greater interest and a more enthusiastic spirit on the part of the parents.

In addition to the agencies already named for the improvement of the school spirit on the part of the patrons of the rural school, I wish to suggest that the educational campaign which has recently proved so success-

ful in some of the southern states, is one of the most direct and forceful means of arousing public sentiment in the improvement of the country school. The campaign which will bring some of the greatest speakers of our state upon educational topics to the patrons of the rural school, will be of great value in awakening interest and pride in the country schools.

In conclusion, I shall name one further agency for creating a good school spirit which is a very effective one; that is, the standardization of the common schools. When the state offers aid to those country schools which meet certain high standards in buildings, grounds, equipment, teachers, etc., the people will raise the character of the schools to meet these conditions and a long step will be taken toward securing the interest and co-operation of the parents of our state.

THE NEED OF SPECIAL TRAINING FOR RURAL SCHOOL TEACHERS.

B. O. SKRIVSETH, COUNTY SUPT. OF SCHOOLS, NELSON COUNTY.

This subject seems to imply that there is a need of special training for rural school teachers and that rural school teachers as a class need a more special training than city school teachers.

I am willing to agree to the first implication but cannot readily agree to the second. It seems to me that the country boy needs the same subject, the same methods, and the same drill as the city boy and vice versa. In this great republic you cannot foretell a boy's future needs by his location. Oftentimes the country lad surges forward and becomes a leader of men, while the city urchin becomes a loafer and a tramp.

It may be implied that the city teachers as a class have received this special training while the country teacher has not. I do not readily agree to this proposition either. In city schools there are a few teachers that stand head and shoulders over the others and in the country school the same is true. As a class the city teachers hold more college and normal diplomas, but not always does this imply that they are better teachers. They have specialized but not always in such a way as to help them to teach.

But we will confine ourselves to the subject with the understanding that most of what is said applies to city teachers as well.

I wish to attack the common notion that there is such a thing as a born teacher. I believe most people could become fairly good teachers if they had the proper training. It is true there are some things which must be natural to a person. These are love for children, tact, system and industry. But there are other equally essential things which are not natural to a person. They are knowledge of the subjects to be presented, knowledge of how mind develops, and method of presenting a subject so that the mind can grasp it.

On the basis of the above facts we can classify teachers into three classes: First, those possessing the qualities that are natural but who are deficient in the knowledge of subject, mind and method; second, those lacking in the natural qualifications but efficient in knowledge of subject, mind and method; and, third, those possessing both the natural qualifications as well as the knowledge of subject, mind and method.

If you have a teacher of the first class you may have a good orderly school, but the progress that the pupils make is in spite of the teacher rather than because of the teacher. If you have a teacher of the second class it is likely that she will have so much trouble with the discipline of her school that she will be unable to have any material progressive influence upon the child's mind. If the teacher is of the third class, then in truth can you say that you have a good teacher.

If I were to classify the teachers I have come in contact with I should say that there would be an overwhelming majority in the first class, a very

small number in the second class and a still smaller number in the third class.

This discussion of the need of special training necessarily leads me to point out some specific things in which I find this large first class deficient. I am not going to speak of the second class because they are beyond all hope of aid, while the third class does not need any discussion.

The people in the first class are to a large extent deficient in matters pertaining to practical affairs. Their knowledge is too theoretical. They can solve problems in cube root but it is quite likely that they would not be able to measure a cistern and tell you how many barrels of water it will hold. They may be able to solve problems in compound interest but most likely would not know what sort of checks need endorsement and what do not. They might talk for weeks on topics on civics, but would not know how to proceed to elect a school treasurer or hold a meeting of a school board in a business way. They might be able to talk on the subject of weeds, grains, cattle, etc., but could not distinguish blue stem wheat from fife wheat or macaroni wheat from barley.

A lot of this lack of practical knowledge is due to the fact that we are compelled to engage as teachers young girls and boys that never had anything else to do than eat the food mother cooked or spend the money father earned. We will never remedy this trouble before we begin to teach in our schools by doing things rather than by talking about things and memorize the things talked about.

I am fully aware of the fact that there are a number of things that cannot be taught by doing, such as historical facts, literature, names of persons and places, etc., but this does not deny the fact that a large amount of school work would be of more value if taught in a practical way.

Now let us see what they need to understand better concerning mind growth. It is a common fault of immature teachers to fail to understand and appreciate the old rule "from the simple to the complex," also that a word which does not represent an idea is worthless. They also are apt to want to introduce such a subject as grammar into the lower grades, not knowing that the pupils are not in their reasoning stage at that time. They are receiving ideas of concrete things but cannot very well understand abstract relations.

In regard to method, we find that they fail in presenting the mechanics of reading, neglect the phonics, because they do not know how to make use of the fact that each letter represents a certain sound or sounds. Oftentimes they give too little drill on things which can be fixed forever in the mind during the earlier school years. Such facts are the addition table and the multiplication table. They do not know how to perform the ordinary activities of business life so that the pupils can do them. They fail in particular in teaching penmanship, thinking that writing is copying instead of training the muscles in such a way that they become obedient servants of the mind.

Most of them are unable to see how our common school subjects branch out from reading, reading for information I mean, and thus when they

are crowded with work they do not see how they can teach history, geography, physiology in the third, four and fifth grades without having a special recitation period for these subjects.

One of our teachers told me some time ago that he had been asked by the clerk of his school board not to teach his children any other subjects than reading, writing and arithmetic. The teacher wanted to know what to do. I attempted to explain that the subjects of history, geography and physiology were to a large extent specialized forms of reading lessons, reading for information, and that he could conduct his work and explain it to his clerk from that standpoint. As subject material for oral language work and compositions he could use facts drawn from history, geography, civics and physiology.

I clearly recall when this matter began to impress itself upon my mind. One day I asked my geography class to study up such topics as Customs in India, Ocean Routes, Raising of Cotton, etc., and write out what they learned. When the essays were handed in I found upon examining the compositions that here I had the very best test I had ever had of the knowledge of language that the pupils possessed. The next day the compositions were discussed in the language class, corrections noted, and finally each composition was rewritten.

It is the case very often that teachers think that language work consists of memorizing rules, pieces of poetry and what not, instead of training the pupils in expressing their ideas. Some try to do some of the necessary training by assigning as subjects for composition abstract ideas which the pupil has never heard of and which perhaps he never will want to hear of again. They forget that the pupils cannot possibly express themselves upon a subject about which they know nothing.

It is very difficult for us to break away from habits learned in our youth. As our teacher taught us so we are apt to teach. Thus, if our teacher teach well, then the present day pupils and future teachers will no doubt teach well. Most of our country teachers teach as they have been taught and they do not stay in the work long enough to learn wherein their weaknesses consist.

To summarize then we find that teachers may be classified into three classes: First, those possessing an abundant supply of native ability, but not sufficient knowledge of subject, mind and method; second, those possessing the necessary supply of knowledge but lack native ability; and, third, those possessing a sufficient supply of both characteristics.

The first group need instruction in subject, mind and method. The chief difficulty encountered in the subject matter is the lack of practical experience of the teachers and hence lack of up-to-date needs. The lack of knowledge of how mind develops results in many useless attempts at teaching, and consequent loss of time, while the lack of knowledge of method results in a misunderstanding of the end in view in teaching reading and language in particular and a consequent waste of time because of the ignorance of the relation of the other subject to these two fundamental ones.

Now what remedies can we suggest for this condition of affairs. First, we might mention the need of more Normal schools. Second, high schools that come in more practical contact with the business life of the community than high schools do at the present time. Such subjects as penmanship, commercial arithmetic, business law or civil government, practical physiology are too much neglected in our schools at the present day. Third, we need better wages for teachers so that we can draw more mature men and women into the profession and making it of some value to them to stay in the work for several years instead of making it a stepping stone to something else. Fourth, we need more consolidated schools and fewer schools with only ten pupils in the school, thus making it possible to hire better teachers, have larger school grounds, better ventilation and better surroundings. Not any one of these will be sufficient to cause a remedy in present conditions. They must all come together and with them must come a more vivid understanding on the part of the public in regard to what are the real needs of a school.

THE COURSE OF STUDY FOR RURAL SCHOOLS

SUPT. B. A. WALLACE, TRAILL COUNTY.

Any question regarding courses of study can be settled only in the light of educational aims. Emerson E. White, whose books have formed a generous share of our Teachers' Reading Circle work, defined education as "the harmonious development of all the human faculties, mental, moral and physical," and this definition is fairly typical of the definitions offered up to recent years. In the courses worked out under these definitions, however, has moral education received its due share of attention? What about physical education? I am sure you will agree with me, that barring rare exceptions there has been in the schools you and I have been acquainted with in this or any other state, practically nothing worthy the name of physical education. Even in mental development, I wonder if our work has not on the whole used the memory, far more than the powers of observation, the imagination, the judgment, or the reason. It seems to me that if we were to continue to define education as we have, several radical changes are needed, before the results will approximate the aims.

But is the aim broad enough? My answer would be, No. This aim is purely individualistic; it goes on the assumption that, if the powers of the individual are developed, he will in some way or other in Providence's good time find or make the environment for which his powers are suited, and all will be well. But this view of education is not so popular as it once was. Harris, Dewey, O'Shea and any number of others could be quoted to present a newer view, namely, that these powers of the individual should be developed, not by just any means that will develop them, but in the light of the conditions under which they are to be used. Dr. Harris says: "The branches to be studied and the extent to which they are studied will be determined by the demands of one's civilization. These will prescribe what is most useful to fit him to perform his duties in the several institutions of which he will be a part."

Of this preparation for the demands of society, I shall refer to two phases, education for citizenship and education for vocation. The first of these has already been introduced in American courses of study, as a sort of an aside from the main aim of education, but demanded in this country because in a government by the people, the people ought to know about their government, but more of this later. As to the second, it seems to me it must be granted, that the first great duty one owes to himself and to society is that he be self-supporting, and this demands in general that he have a vocation as a means to self-support. If school is to prepare at all for life, what more important part of the preparation is there than a contribution toward self-support? In view of the fact that so few comparatively go beyond the elementary school, can we leave this great work to the higher institutions? I believe not;



I think we in North Dakota must join in the movement now going over America, which demands more attention to vocational training, as well as to citizenship training and physical education—a training which no longer aims to develop the mind alone for itself, but which aims to train the whole individual for the life he is to live.

But I hear some one saying, "How are you going to get any more into the courses than is there already?" The objection is well taken; our courses are overcrowded. Only year before last our state association demanded the simplification of American elementary courses of study, and nobody knows better than a county superintendent how much it is needed.

Certainly before anything can be added we must simplify and reorganize what we have. It strikes me however that a reorganization of our courses in the light of the real aims of education will in itself simplify them immensely. To demand of any subject the aims of education which it satisfies and which thus justify its retention in our courses of study, and then to reduce it to those parts of its material which contribute clearly and definitely toward those aims, will reduce the subject matter of several of them very materially. Then I suspect we shall find that not so much needs to be added. The newer aims suggested above are not necessarily to be realized entirely through the addition of some new subjects. The change will largely come through the introduction of a new viewpoint, a new method of attack, and in some cases at least this will reduce rather than increase the time demanded for the subject.

To take up next the subjects themselves, reading, the "key to knowledge" ranks first in importance. Reading is the recognizing of ideas by means of the written symbols, and the aim of this subject in the curriculum is to teach the pupil to do this and to do it easily, rapidly and accurately. That this ability be acquired is mainly a question of method rather than of subject-matter, but still there is a difference in subject-matter. I find myself in hearty accord with our own course of study when it says: "The material should be from the literature of power, writings that by reason of their purity, beauty and spiritual strength have become classic." Personally I have but little patience with that form of correlation that fills up the reading period with a lot of informational matter about geography, nature study, history, etc. There are many pieces of genuine literature dealing with these subjects, and such material may well be used at times, but the average supplementary reader in geography or nature study or even history is far from literature. And the pupil should meet for one period each day, I believe, with something elevating and inspirational. Again, rather than difficult material and slow progress, we should choose easy material and plenty of it. Generally, e. g., a fifth grade would get more value from two fourth readers than from one fifth. The more difficult the work the greater probability of teaching the pupil to hesitate, to stumble, and possibly to dislike reading. My idea of method in reading will appear in the discussion of language, and the only further point here, is the need of more reading by the teacher, to her pupils. Let the teacher select some interest-

ing piece of literature, possible a little more difficult than what the reading class is studying; let her read it over to herself carefully, and practice it aloud a few times; then let her read it to her school. Such a lesson frequently would contribute much to their interest in the right kind of reading and their appreciation of it.

By common consent, language ranks next in importance to reading. In the reading class we teach the pupil how to gain ideas af others from the printed page; in language we teach him to express his own ideas to others. To me, this is the all important aim of language training. Courses in language are often, like our own course in language, so laid out as to aim at a mastery of literature. But the most of what literature is presented in the elementary school belongs in the reading period rather than the language period. Here let the pupil talk and write practice at expressing his own ideas under sympathetic but careful criticism. Nor can this practice in expression be confined to the language period. If reading is a "key to knowledge," let the pupil exemplify this in any and all subjects; what he has read, hold him responsible for knowing. How else can we train him away from the idea that reading is mere word-naming, and into the idea that reading is a means of securing knowledge? There is no experienced teacher but knows that half the difficulty in upper grade geography, physiology, history and even arithmetic is due to the fact that so many pupils read words instead of ideas. In one school my teachers set out to teach pupils to so read as to know what they had read, and then to tell it. We planned when we had this power gained in considerable degree to make a similar systematic attack on the other subjects in succession. But as fast as we gained anything in power to read and power to express, it showed itself in the other subject, and ultimately solved the hardest part of their problems before we ever made the attack on them.

In this belief that language work is designed to teach the pupil to express his ideas, and that a large part of the grammar we teach fails to make any contribution at all proportionate to its cost, I recommend the radical reduction of the time and effort now devoted to grammar in the grades. I believe, too, that to make language work aim at power to talk and to write will make the subject more practical, and more valuable to the pupil in the duties of life, at the same time that it does more to make him an intelligent reader, a thinker, and as such more able to appreciate the good things of literature than as now where we neglect expression to aim directly at literature.

Arithmetic is in the course, according to one group of school men, because of the mental discipline it affords; its great popularity in certain quarters is due however to its being the only subject that to those people at least answers vocational needs. Many people who do not care a snap for mental discipline can see the immense advantage of being able to "figger." And really these people are right. Mental discipline alone is not in this day of crowded curricula a sufficient defense for inserting any additional material. But in the things the pupils will need to know, and so present them that mental discipline will be gained in the

process of learning them. What, then, are the things a pupil needs to know? Certainly to be able to add, to subtract, multiply, divide; quickly and accurately; to figure interest, bank and commercial discount; to reduce the denominations he has occasion to use; to be familiar with the fractions he will likely need to use, and their combinations. But what does he need of combinations of compound numbers, of denominations no longer used, like furlong, quarter (of weight), etc., of fractions with denominators in the hundreds of thousands, etc., etc.? Cut out, then, a great mass of material, never designed to teach him something he is likely to need to know, and put in its place, in part at least, drills that will make him skillful, accurate and rapid in the things he will certainly need to do. Chairman Schmidt of the Committee of Seven, has figured that by doing this we can make arithmetic vastly more valuable and also save one-third of the time it now claims.

The environment that surrounds us is of two kinds, natural and social. To acquaint the pupil with the former, we have long offered in our curriculum a course in geography, and in more recent years we have added courses in nature study and elementary agriculture. In the process of simplification, I think one step will be to combine these into one course with nature study gradually broadening into what we call geography, and geography to be replaced by elementary agriculture for a half year in seventh and eighth grades. The old definition of geography, "the study of the earth as the home of man," needs modification, I believe. It places the emphasis on the study of "the earth," and often at least leads to a lot of nature study about things of no real interest or importance to the generality of people to know, and in the upper years to a vast amount of physical geography, often beyond the child to grasp. The definition offered by our present course is better. "Geography is a study of man and the physical environment in which he is placed," for it leads to emphasis on the human element in the subject and this will add to both the interest and the value of the subject. I am wondering if we could not to good advantage decrease the time required for the geography work, by treating several of the continents possibly a little more fully than now on first study and then omitting the second treatment of them entirely, except for a brief study of their commercial and other relations with the United States. I think this could certainly be done with Australia, Africa and Asia, and with several countries of South America and Europe. I think more emphasis should be placed on map work than is usual—not on map-drawing, but on map study and recitation with maps before the class and pointer in the hand of the pupil reciting. This will help to make the pupil an intelligent and interested reader of papers and magazines, will help him, in other words, to know and enjoy hearing more about his environment.

History and civics get their places in our curriculum because of the demand for training toward citizenship. But who will claim that these subjects are doing at all adequately the work that needs to be done? I believe our aim has been wrong. Are we attempting to get our pupils interested in the work and problems they themselves will have to meet

or are courses laid out with the view of giving the pupil a lot of information about the government and the nation? For example, what lessons can the history of thirteen colonies teach which could not be gotten from the history of four colonies? Our course of study cuts down the time usually devoted to "wars" to some four months; couldn't this be further reduced to advantage? In most of the texts, and in our course of study, the events are grouped by administrations. This puts too much emphasis on the time element, because it associates several otherwise unconnected events, simply because they happened in the same four years. More lessons of citizenship would be taught by emphasizing cause and effect relations, and presenting movements rather than administrations. We must, however, avoid the mistake some people have made. The idea that history is the story of the development of institutions has led sometimes to the attempt to foist upon grade pupils a mass of constitutional, political, economic and monetary history that could have but one effect, namely, to discourage all interest in history and national problems, "if that is what they consist of." To put this in a nutshell, our history texts and history courses need to be rewritten, reduced in amount of material, with the new aim of *interesting* the pupil in national life and its problems, and of teaching him just the things he needs to know about them; and in realizing this aim the interests and ability of the twelve to fifteen year old pupil need to receive full consideration.

The same general idea holds it seems to me with regard to civics. Civics should not be an encyclopedic statement of what the law defines as the duties of each officer from president of the United States down to local road boss. Few teachers and fewer pupils can maintain interest in any such mass of abstractions. Why not put in the human element? Who is your local road boss and how much road is he responsible for? Where does he get his help? What roads were fixed up this past summer? Or, Who is the register of deeds of this county? What does he have to do? What is a deed anyway? Why have it recorded? What is a "second mortgage?" Such questions as these will appeal to both teacher and pupil as of practical value, and will be efficient in developing interest in citizenship and knowledge of it.

If history could be reduced as above indicated, I should like to see civics expanded to include some social studies outside one's relation to government. The division of labor in the home, in the small community and in the large factory, the territorial division of labor, the service of each individual and class for the rest and its need of the rest; some simple studies in business contracts, notes, mortgages, transfer of lands and other property, are, I believe, as important to the pupil to know as the duties of the secretary of the interior, or the secretary of state of North Dakota, and can be presented so as to be as much within his understanding.

With regard to physiology, it is a pleasure to note the widespread movement now under way to eliminate the old informational idea and to preach health from the standpoint of individual, industrial and national efficiency. Among courses of subject-matter designed to realize this aim,

my personal opinion so far as I know them would be that the high water mark is reached in our own North Dakota course; far be it from me, at least, to attempt any improvement in it. My only suggestion is the need of a vigorous and wide-spread campaign among teachers, directors and school patrons, to the end that we eliminate the vicious conditions of poor ventilation, defective lighting and too often of rank uncleanness, that at present make hygiene teaching void or at most of little effect.

We must not forget, either, that physical education is broader than physiology. It is not enough that the child or adult keep his body in health. The body furnishes the means and the only means through which the mind can make known and execute its decrees. To the end that this means be efficient as possible, the body needs to be brought under the full control of the mind. It will not do to say that nature provides for this, and that control of the muscles comes without training. It is better to say that the activities of the child's everyday life practice him in the control of certain muscles in certain movements, but control of all the muscles, a symmetrical development of all the parts of the body, can be reached only through systematic physical training with this end in view. The new law requiring physical culture is a step in the right direction and should be enforced.

A part of this same problem is the question of manual training. As Superintendent Kern says, few boys get much training in the use of their hands, manual training, though many boys get plenty of manual labor. When elementary courses and elementary schools are as they should be, they will include some manual training for the boys and some domestic science for the girls. Probably no one, certainly not I, ought to attempt now to say what or how much of either this should be; our cities, villages and consolidated schools are already beginning the work, and its sphere of usefulness will widen as its form gradually becomes adapted to our conditions. The point I wish to urge here is, that we line up with the movement, that we welcome it as another step toward real education, that we seek opportunities, not so much to persuade some board to spend some money on it, but rather to get a practical start here a little more there, and gradually to work out some things that fit our conditions.

These more or less disjointed suggestions deal with elementary courses in general. With varying condition, the degree of emphasis on these elements will vary. In the rural and small village school, e. g., rural conditions will receive large recognition. First, the environment of nature and rural conditions is right at hand, so there is opportunity for its large recognition. Second, that law of pedagogy which tells us that the child's school education must begin with the knowledge he brings to school, requires us in the case of the country child to begin with rural surrounding, nature study, crops, animals, etc. Third, we can best prepare the pupil for the life he is to live by acquainting him with as wide a knowledge of its conditions as possible, and especially by showing him how to observe, study and improve those conditions. So a course of study for rural schools should, I think—

First, place special emphasis on nature study of a practical kind.

Second, extend the elementary agriculture to a year course.

Third, offer some lessons in improvement of country life, as rural sanitation, good roads, improvement of buildings and grounds, increase of social relations, "good times," if you please, etc.

Fourth, the Committee of Seven suggests as supplementary to the ordinary arithmetic text, a book of problems relating to the production and marketing of stock, dairy products, hay and grain; size of bins, tanks, cisterns; purchase of lumber, fuel, groceries, and other problems of rural interest.

In conclusion let me say that these changes can come completely in some subjects only with the rewriting of our texts; I do not believe, however, that we should wait for that. We should choose the wheat out of the chaff in these suggestions and the suggestions of others, and, getting the right aims before us, should labor unceasingly with text-book writers, teachers, boards and patrons, to bring the various means of education as fast as possible toward a realization of these aims. Nor must we be either discouraged or angry that teachers and boards with the best of intentions will long and steadfastly cling to the paths in which we have taught them to travel.

BETTER SUPERVISION OF THE RURAL SCHOOLS—IN WHAT DOES PROPER SUPERVISION CONSIST

FRED M. WANNER.

A good school depends on so many influences that it is not easy to estimate the relative value of each. So much, however, depends on the teacher, that all the other considerations give way to that influence. Yet the teacher once secured, any imperfections may often be counterbalanced by the other influences. With the hearty support of the patrons, and the school board, an inexperienced person may become a good teacher, when otherwise a failure would be the result. The rural teacher, however, needs the help of the county superintendent, certainly as much as does the grade teacher need the oversight of the principal or the city superintendent, even if there were no difference in the preparation of the two.

No one disputes the necessity of a city superintendent. It is nothing for a town of a thousand or less to hire a superintendent who has few or no classes to hear, and whose duty is to supervise the work of the other teachers. He may have as few as fifteen teachers under his supervision and yet he can find plenty of work to occupy his time. This may well be called supervision. But contrast this with the work of a county superintendent in a county of one hundred schools, with the distances to travel, and it can easily be seen that the problem of supervision is vastly greater, even if the visiting of the schools were all such an officer had to do. Indeed in many instances the visiting supervision part is but a farce. To visit a school but once a year, and sometimes not at all, certainly gives no chance for a superintendent to have any idea of the work done in that school. And in many of our schools where a foreign population exists, and the school officers are not progressive, inefficient teachers make the schools anything but what they should be, making close supervision a necessity.

Every school ought to be visited by a supervisor early in the term. The less preparation or the less experience a teacher has, the earlier in the term should be the visit. There should be no necessity for making the visit short, in order to cover more ground. A short visit with an inexperienced teacher does very little good. The observation must extend over enough time to get a good idea of the method or lack of method. While we cannot insist on a teacher's having normal training, many commence school with a very limited idea of how to proceed. How can we expect a young lady to know the best method of teaching reading to a beginner unless she have learned the method in a training school? All she can be guided by is a dim recollection of the methods used in her own education. Then a visit by the supervisor is not of much benefit to the teacher without a thorough outlining of the suggestions—*written* suggestions that may be referred to by the teacher. If much inexperience is evident a second visit should be made soon, and others, until marked improvement is being made. The second or third visit is much more

efficacious than the first because the supervisor comes with something to start with.

Then there should be the privilege of the supervisor of meeting the school officers and patrons, and of trying to better the outside influences that have so much to do with the school. A supervisor when contemplating a visit to a district should be able to provide for a meeting of the patrons to talk over school matters; comparing the rural school spirit with that of the town, and trying to inspire them with a desire to better the schools; urging the parents to get into touch with the schools by more frequent visits to the schools and more sympathy with the teacher; touching upon the life lesson in punctuality and perfect attendance, and the mental and financial loss to a pupil by being kept from school, and the value in dollars and cents of a thorough education.

This would be an opportunity also to awaken in the parents a larger sense of their responsibility in the education of their children outside of the province of the school, by making them realize that the child's moral instruction, their reading, etc., cannot be left to the teacher alone, but is the parents' responsibility.

Then there are school officers' meetings, the teachers' meetings, the agricultural contests for the county superintendent to see to. All superintendents realize the necessity of these activities, and it make a conscientious person "tear his hair," in deciding which must be left undone.

We cannot hope to have the supervision we should like and accomplish all these things until our counties can be districted into from thirty-five to fifty schools in a division, with a school supervisor in each district, reporting regularly and in detail to the county superintendent. Then would the county superintendent be more at liberty to visit a school especially needing his presence, or a community where a little reconciling is needed. We shall thus be able to keep tab on all the schools in the county and not get out of touch during an extended tour of inspection. The relief given by the last legislature in providing a field deputy for counties having one hundred fifty schools or more will do much good, and is certainly a step toward recognizing the necessity of close supervision. I realize that I have been speaking of conditions that it will take years fully to reach. And that we must wait for the wisdom to become apparent of the advances we have already gained, before we can expect much radical change for the future. The fact that conditions are not as we could wish, does not lessen our responsibility. We are glad to have the example of those who have made marked advance in certain lines. We have to decide for ourselves which of our duties need special emphasis. It is the county superintendent's duty and privilege to raise our schools to a higher plane, even if he does feel handicapped in certain directions; and it is not for him to relax his efforts if progress is not as great as he could wish.

DEPARTMENT OF SCHOOL ADMINISTRATION

MINUTES OF THE SCHOOL OFFICERS' SECTION.

MINOT, DECEMBER 29, 1909.

The school officers' section was called together by Supt. Stockwell, in the absence of President C. E. Best, of Enderlin, who was detained at home by official duties.

Mr. E. C. Hilborn, of Valley City, read a very helpful paper on the Improvement of School Grounds. There was a general discussion. Other papers on the program were not presented.

At the business meeting, R. B. Cox, of Wimbledon, was elected member of the nominating committee for the General Association.

Supt. Stockwell introduced the discussion upon the advisability of continuing the section. A general discussion brought out the feeling that this section should be continued and made more distinctly a meeting of school officers. It was the opinion that a two days session be arranged for in the future.

The following officers were elected: J. S. McNish, president, Fairdale, N. D., R. B. Cox, secretary, Wimbledon, N. D., J. P. Tangberg, member of the executive committee, Driscoll, N. D.

The following is a partial list of the school officers present. There were others who left without enrolling:

J. S. McNish, Fairdale.

Knute Alland, Hoople.

Daniel Shinke, Harvey.

Conrad Febelus, Harvey.

Christ Jeller, Harvey.

J. L. Riddle, Eckman.

R. E. Stewart, Norwich.

N. G. Grovem, Park River.

M. W. Kemmer, Lisbon.

Knute Olson, Temple.

J. P. Tangberg, Driscoll.

P. A. Berg, Englevale.

C. B. Vold, Fort Ransom.

J. B. Ferond, Drake.

R. Blox, Wimbledon.

L. A. Larson, Tunbridge.

SCHOOLS AND SCHOOL DISTRICTS.

CHAPTER 201.

(S. B. No. 28—Sharpe.)

IMPROVEMENTS TO SCHOOL GROUNDS.

An Act Defining the Duties of District School Boards in Relation to the Planting, Cultivation and Protection of Trees and Shrubs Upon School House Grounds.

Be It Enacted by the Legislative Assembly of the State of North Dakota:

Section 1. Duties of District School Boards as to Tree Planting.—It is hereby made the duty of every district school board in the state of North Dakota to plant trees and shrubs upon the grounds of every school house in their district and to encourage school children to plant such trees and shrubs and to cultivate and protect the same.

Sec. 2. Fences.) Where stock is permitted to run at large, it is hereby made the duty of the district school board to cause to be erected about the grounds of every school house in each district a fence sufficient to protect the trees and shrubs upon the school house grounds from destruction by live stock, and such fence shall be provided with convenient gates or stiles; provided, further, that in the construction of such fence barbed wire shall not be used.

Sec. 3. Funds for Tree Planting and Cultivation.) The district school board is hereby empowered and it shall be its duty, to expend not less than ten dollars annually out of the funds of the school district for the purposes mentioned in the foregoing sections.

Sec. 4. Emergency.) Whereas, an emergency exists in that there is not at the present time any adequate law providing for the planting of trees upon school grounds, and for the fencing of such school grounds, therefore, this act shall be in force and effect on and after its passage and approval.

Approved February 15, 1909.

IMPROVEMENT OF SCHOOL GROUNDS.

E. C. HILBORN, YALLEY CITY.

When the last legislative assembly passed this law for improvement of school grounds, they must have recognized that the planting of trees has an educative value. That school buildings surrounded by trees, shrubs and flowers exert an influence on the life of that school and on the life of the pupils, else such a law would not have been justifiable. The strange thing would seem that the legislators who have had the care of this treeless prairie state should not have enacted a law of this kind until the year 1909. The influence of environment has been recognized throughout all history long before the scientific psychologist was known. In a recent address at the Minnesota State Horticultural Society, the statement was made that an English judge, commenting upon the criminals who had come before him in his long life time, said that the criminals that had appeared before him had been of all classes save the one class of horticulture. It may seem incredible to the casual observer that beautiful surroundings exert a direct effect upon the moral fiber of the individual, but the literal truth of this has been often demonstrated. Prof. Waldron has stated that the mental and moral development of boys is, upon careful estimation, 30 per cent more rapid in schools having gardens attached. Foreign countries have long ago recognized this truth and France and Germany have long been making use of the principle. It has been found that money expended in the plating of parks has been more than saved in the expenses of maintaining jails, court houses, etc. It has been urged by some that it is useless to plant trees, shrubs and flowers around school buildings as they would be destroyed by the pupils, and have pointed to the condition of jack-knife-carved fences, outbuildings, etc. But such has not proved to be the case. Children will respect what is worthy of being respected. It is a rare urchin indeed that will not wipe its feet as he enters a room with a spotless floor, even though he tramped into his mother's kitchen with muddy feet. It has been the experience of all who have planted trees and flowers that the least of the offenders are the young. One of the first wholesome results that come from the beautifying of the grounds is the passing of the vandalism of the small boy. Where before he had nothing to arouse his admiration and respect, the lingering hereditary reverence that is latent in every human breast arises to protect the growing beauties of nature. The young have more often proved the guardians from the wanton destruction of trees and flowers by those who have allowed the grossness of material things to dwarf the natural respect for nature's handiwork.

There is another point I would call to the attention of the directors of rural schools. This is rapidly becoming the age of cities. There is a continually increasing flow of population from the country to the city. The proportion of the people who live the city life is growing every year. One hundred years ago cities were few and unimportant. New York and Bos-

ton were more like Fargo and Grand Forks of today. Practically the only life was country life. But things have changed. Today the boy learns to think that any one who stays on the farm must naturally be slow, so he uses the first chance to go to town. There is no question more important to be answered today than, How can we keep the boys and girls on the farm? It is worth your while to be able to answer this question. They dislike the old schoolhouse on the prairie, but they learn to love the life of school in the city. Home is more than four square walls—it is a spirit that pervades the place. So too, school is not merely a building and teacher; there is a school spirit. A spirit that will stir young hearts to loyalty. But there is little to appeal to the boy or girl in the average prairie school. There is little community spirit there—no community of interests. But there is something to appeal to a boy in the life of a city school. He learns to sing songs about it, he waves banners and yells for it, and so of course he learns to love it—and stays right by it. Yes, and he does more—he shows his country friend all these things, plants the fire in his heart and he goes home determined to go to town to school. The city school is all right but it is too bad that the boy and girl should have to leave home, too bad that they cannot find what they want and remain at home during those years when parental care is needed, those years when family ties should develop and become more dear. Believe me, if you are going to compete with the city school successfully you must learn from them. Why not make the school the center of our rural life. If you make it worth liking the boy and girl will like it—they will sing about your school just as heartily, will yell for it just as loudly, will try as hard to win contests for it as any other school. These things will make them think they have something and they will be satisfied. I have generally found that young people are far more loyal when aroused than their older neighbors.

There are several things that make for good live schools and an attractive surrounding is one of them. I have said before, the boy will like anything worth liking and vice versa.

But don't expect him to grow enthusiastic over your school if it isn't worth your own attention. Are you proud of the school buildings and grounds in your community? You are not? Then don't expect your boy to be proud of it either. Do you take your visiting friends to your rural school to show them the splendidly arranged building with all modern conveniences for education. With cheerful walls, and decorations, with flower gardens and beautiful trees. If you can't do this don't expect your boy to show it to his friends for he won't. I have often watched the joy with which some high school or normal student piloted his father or mother or other visiting friend around the building, pointing out the many things to arouse their admiration. The pupil was proud of his school, and it was clearly his ambition to stay right by it and graduate. There was something he could feel proud of, and this enthusiastic boyish nature responded.

What a picture the average country school makes. It is not necessary to dwell on the unkempt prairie sod which surrounds it, or on the plain



interior. You know it all. The same story from Hankinson to Portal, from Fargo to Montana. It is enough to say, it doesn't attract you or the boy either.

If you are to make the school the center around which is to move the life of the community you must make the school attractive—a common community pride. Buildings adapted to the needs of modern educational methods, cheerful rooms, attractive walls, laboratory and library, necessities even though the simplest, are demanded to make the school up-to-date and to satisfy the ambitious young American. I have taught in rural schools in North Dakota where the general impression was that gaudy pictures from Doan's Almanac and Case Threshing Machines were sufficient to satisfy the esthetic taste of the pupil and all else was in harmony with this idea.

If our school is to be the center of things it must be attractive from without. There must be something to appeal to us. Something to talk about. It should be the one most attractive spot in the neighborhood. The most expensive brick building will look bald and bare on the bleak open prairie. If there is one simple place in the whole community that needs trees and lots of them it is the school grounds. The school grounds should be carefully planned by a landscape gardener or if this is not done, some good treatise or school ground plans should be used as a guide.

1st. Plans.—The first thought for prairie schools is to plant a shelter belt. One that will stop the heavy winds at all seasons, will act as a snow fence in winter to keep and form a heavy green back ground in summer. During this winter, we who are living in the open northwestern part of town find a trip down in that part protected by trees like a change of climate. This shelter belt gives a background and setting for the buildings. It is necessary to give an individuality to the grounds and to set it off from the broad stretches of prairie. This should be of generous width, three or four rods wide, if possible, on the north and west sides. It is quite necessary that this belt be planted in rows because of the ease of cultivation, but the rigidity of these artificial lines can be broken by making shrubbery the inside and especially heavy in the corners. Running back of the school house a heavy row of willows or lilacs may divide the boys grounds from the girls and the outbuildings should be heavily screened with large shrubs. A properly constructed lattice work covered with woodbine can be used in this place very effectively with shrubs to help out.

One can do so much with a few shrubs if judiciously used. Plant shrubs beside the steps and near the corners of the building, to soften the boldness of the walls and unite the building and lawn. There is an endless variety of ways we may indulge their taste but there are a few don't to observe that should be mentioned.

By all means don't crowd and cramp the playground. In many cases it would be best to set the school house back so as to leave a large play ground in front. Plenty of room for tag and pull away and basket ball, and so the little tots can have their games without being run over by the bully. This play ground should be uninterrupted by trees or shrubs—a clear, open space. Shrubs should never be planted singly any way, but

always in mass with others, for groups or walk borders, by the steps, inside the trees, around the foundation or outbuildings; they are always a part of something else and look weak alone. Outside the shelter belt a few groups of trees can be used to give easy and natural effects, but they must not break up the playground. Neither should the play grounds be broken up with fantastic flowerbeds. A place for these should be provided for in the same way you would provide for your lettuce and radish bed.

2d. A Selection of Trees.—After the plans have been adapted, there should be a sensible selection of varieties, guided by our prairie experience. There is such a large number of successful trees and shrubs that experimenting with the first plantings is unnecessary. The shelter belts should first be provided with a heavy row of willows—preferably the Golden Russian. These should be planted about three feet apart. A single row is sufficient to stop surface winds and act as a snow fence. These Golden Willows make some of our prettiest trees although never becoming very large. Next these should be planted a few rows of the Carolina or Norway Poplar. These grow tall with few lower branches and will not seriously suffer from the drifting of the snow caught by the Golden Willows. Their rapid growth will make a strong background for the rest of the grove. Next these should come several rows of our finest and best shade trees. The Green Ash is undoubtedly the one best tree for the prairies. These should be planted alternately with a good nurse tree such as the Box Elder, and possibly a few Soft Maple, although the latter have not been a success in the northern part of our state. This planting should be not more than six feet apart in a row and the rows eight feet. The Box Elder makes the best of nurse trees and for many years makes a rapid growth. Unless it is severely pruned it has a tendency to become scrubby as it grows older. There are other permanent trees which may be planted with success such as the Elm and Hackberry. The Elm, however, is of little value in the average grove. Its principle use is for a street tree where it can be given plenty of water. Prof. Waldron has suggested the following formula: Box Elder, Maple, Box Elder, Elm, Box Elder, Ash, etc. The time will come when the nurse trees will be taken out and the hard wood remain. The nurse trees start quickly and encourage the others by associating them at their sides that they will reach upward to get the light. This develops a strong, healthy looking tree and keeps them reaching upward. Many who have nothing but dismal failures in the planting of single trees may find the best of success when raising a small forest, for in a grove we can produce what we might term as forest conditions, the shaded ground, protected from the sun and the drying winds, a reservoir for moist air to gather and the plants ever reaching upward for light, continue to grow. Place one of these trees out of its natural environment and let it fight with sun, wind and sod and it at once becomes scrubby and sooner or later dies an unnatural death. This thick planting also prevents the growth of grass and weeds and allows an accumulation of vegetable mould which in turn feeds the trees and retains the moisture. Don't plant cotton woods. They were not intended for groves and have

never been a success save in single rows or for single specimens. Inside of these trees were to be planted shrubs. First may be planted a cluster of chokecherries, wild thorn or wild plum. Inside of these the smaller June Berry, Buffalo Berry, shrubs such as the Lilacs, Spirea, Buckthorn, Caragana and Snowball. Plant these in masses of more or less irregular outline against the tall background of the large trees. Make your selection so that there will be some in blossom at nearly all times of the year. Early in May the Spireas come out with their wealth of snow white blossoms. These are followed by the Snowball, the red Spirea, the Tartarian Honeysuckle, the Lilacs. In the month of July comes the Peonies and Syringa, and later the Hydrangea, whose blossoms by the way are quite apt to be caught by the early frosts. In the school yard at Enderlin there is a large clumb of chokecherry and wild plums. Every spring this is a large bank of white blossoms and throughout this season the small children bring these blossoms in and cover the desks of the teachers. While children are unrestricted in picking save to guard against breaking of limbs, the supply never seemed to give out. The Russian Olive and Buffalo Berry are desirable where one has to contend with very dry conditions. The work so successfully started by some, notably the public schools of Jamestown, in the planting of child flower gardens, would seem to be especially adapted to the rural school. Most of the children have had some experience in gardening and understand the handling of soil and lacking the organization for the more strenuous athletic games they might easily be interested in the best of flower gardens.

3d. Planting.—After the trees and shrubs have been selected comes the question of planting. The first thing in the planting is the thorough preparation of the ground. It is useless to plant in sod or even a shallow plowing. Ground should be thoroughly worked up and the plowing should be deep, the deeper the better. Where large trees are planted holes should be dug to a depth of one and a half feet at least. Perhaps more trees are lost in this state from careless handling and ignorant methods used in the planting of trees than in any other way. Roots must not be exposed to the sun and wind but kept carefully protected and as near as possible the original position of the roots must be kept. The fine earth worked in all about the fibers and then thoroughly planted. There is no need for a single tree being lost in the planting. The same care should be exercised in the handling of trees as one would exercise in the handling of fish from one pond to another. The large part of this could be done by the children under the right supervision, and they could thus be taught valuable lessons. After having taught several years in North Dakota I am firmly convinced that our schools could teach some more practical lessons, without neglecting the studies that make for manhood and culture. Why should not our pupils learn at school lessons of forestry and agriculture. Let them plant at school while they take lessons in planting from some easy botany. A few lessons in advance of the planting season would arouse the interest and develop methods. Then they would go home to show Dad how to plant trees, and have an increased interest in the farm as well as school. This would interest the boy in farm problems and do more than

all our preaching to arouse his interest in the farm. As the trees grew and the surroundings became more beautiful it would grow dearer to the children of the community. Don't preach to children that they should love their school and home. Sermons slide off from them like water from a duck. But make the school and home attractive. Let them help to beautify it, and they will love it as they have an investment—an interest—in it.

Care.—When the trees are planted they should be cultivated often throughout the remainder of spring, but when school is out, and there is danger of cultivation being neglected, I believe that the best method is to cover the ground with a mulch of straw, to keep the weeds down and the surface moist. In fact mulch is better than cultivation through the summer months in the dry parts of the state.

Once that these trees are properly started and helped until they shade the ground, nature will take care of them after her own fashion. Year by year the grounds will grow attractive. They will become more homelike. Children will learn to know the various kinds of trees and flowering shrubs. The birds will come and build their nests there, will sing in their branches, and the material for bird study will be brought to the school house door. The love of the bird and the tree and the flower will develop by natural association on the child nature. And even more than this the vast field of literature, which is now partly a closed book, will gradually be understood. There has always seemed to me a pathos in our trying to teach to our prairie pupils the poems of Bryant and other naturalists. How can they understand. And they wonder why we rave over them and do not understand us. What do many of our poems and songs mean to the most of our children, for example. How dear to my heart are the scenes of my childhood when fond recollections present them to view, the orchard, the meadow, the deep tangled wildwood, and every loved spot which my infancy knew. Or, Woodman, spare that tree. I suppose the high price of lumber would be the first thought of many. Or the song, Swinging 'neath the old apple tree. Our literature for our prairie children is full of holes—but plant trees and fruits and flowers, plant systematically, wisely, generously, and much that should be their natural heritage, they would be able to claim.

The winter is passing, spring will soon be here. Get busy; plan now, and when life starts in the spring, plant trees.

MINUTES OF THE THIRD ANNUAL MEETING OF THE DEPARTMENT OF SCIENCE AND MATHEMATICS.

The association of science and mathematics teachers met in the normal building at Mayville on November 6th at 10 o'clock a. m., with President Bolley in the chair. The opening number was a selection by the normal chorus and the rendition was another evidence of the ability of Miss Brant, teacher of music and drawing at the Normal, to direct such work successfully. The selection was entitled "September."

President Bolley then called on Mr. Hillyer, president of the Normal, for a few words of welcome. Mr. Hillyer, in a few well chosen words, welcomed the association to Mayville, and expressed his appreciation of the coming of such educational gatherings to the normal school. He commented favorably upon the evidence of the scientific spirit having invaded the teaching profession as it has done in recent years, and encouraged all educators to continue with renewed energy and enthusiasm in this line of investigation.

The Normal Senior Glee Club rendered two selections, "An Evening Hymn," by Gottschalk, and "The Miller," by Veazie. Both selections were well received. Following this the regular program was given. President Bolley read an able paper on Observation and Teaching. He first presented the fact that so many students coming to college are deficient in observational ability, then analyzed this defect, giving in an able manner what seem to be the causes of it, and showing how these causes may be removed and the defect corrected. He attributes the error to poor teaching. We do not make proper demands on the observational powers, hence the pupil does not acquire the observational tendency. The speaker gave at length methods of presentation which would, if adopted, detract nothing from the present value of instruction, while it would add much by training these powers of observation.

In the paper, "The Teaching of Agriculture," Superintendent Forster of Harvey presented clearly and forcefully the weakness of the present methods of farming which might easily be removed by the proper education in agriculture. He showed that there is an urgent need for better results in farming else the United States will have to import foodstuffs within ten years, because the increase in population is so much more rapid than that in food production. He then outlined a method of procedure for the schools which will result in instructing the coming farmer. His strong plea for the study of agriculture and related topics in the high schools, and in the grades as well, met with a hearty approval from the teachers assembled.

The paper on Geography Teaching by Prof. Pope of the normal at Mayville, was a valuable contribution and provoked much discussion of interest. He plead for the teaching of geography and for the use of the text instead of the abuse of it by a sort of slavery thereto. Messrs. Chandler of the University, Johnson of Hillsboro, McMullen of Valley

City, Heyward of the State Department, McFarland of Valley City and Johnson of Valley City, all contributed to the discussion. The one idea that seemed to pervade the paper and the discussions as well was that the subject-matter of geography is sadly in need of organization and that the old texts fail to do this organizing, but present a mass of matter, some of which (if not very much) is irrelevant to the subject.

Principal Davies of Amenia came to the association with a message regarding the teaching of arithmetic. We cannot give the points of this paper with accuracy, not having it before us, but will attempt to give some. The writer pointed out the many ways in which the problems given in the arithmetic classes might well be improved by making them relate to the various activities of the pupil's life in a more real way than they do now.

Prof. Bolley, in introducing this paper for discussion, expressed his delight in the excellence of the paper, its saneness, and in the movement to improve the teaching of this subject. Prof. Weeks fears that the adoption of the ideas of the paper would do away with much of the medievalism now seen in teaching. He, however, would welcome this change, and hopes that the teachers will do all possible to bring it about. Prof. Johnson, of Hillsboro, spoke commending the study of geometry and the making of the study concrete, and asked for further light that he might make it yet more real to the pupils. As his question was not answered, we take it for granted that there are many others who would like light on the same thing. Prof. Chandler advocated the appealing to the common sense of a thing more and to the formalism, so much of which is seen in geometry, less. He said that we should ask the pupil, Is it reasonable? Is it true? Prof. Travis thought that much of the trouble in teaching geometry might be avoided if the construction were made in conformity to the hypothesis. He said that it is the common plan to make, say, two triangles equal and then to ask the pupil to prove that they are equal. This is wrong. If, he said, the proposition "Two triangles are equal if two sides and the included angle of one are respectively equal to the two sides and the included angle of the other" is to be studied, then one triangle should be made and the other should be made with two sides and the included angle respectively equal to the corresponding parts of the first triangle. The pupil now does not know whether the triangles are equal and there is something for him to prove. The speaker further protested against the long artificial forms of explanation which the pupils are so often compelled to use. Prof. McArdle seconded this protest and reminded the assembly that the work in geometry or arithmetic is often made a mere language lesson. Prof. McMullen said in part: "What we have heard is revolutionary. What are we going to do? I do not know. Shall I bring a steam engine into the class room first or shall I teach physics first and let the pupil apply this knowledge to the engine when he has opportunity? Is there not some mental discipline?"

Mr. French's paper on "How to Give the Sciences Their True Cultural Value," was read by his brother, and was a paper showing that not every one who knows a smattering of science is qualified to teach the same. This paper also is not with us, hence we cannot summarize it.

Professor Brannon began his discussion of "What Botany Shall be Taught During the First Year of Plant Study," and finished this after luncheon. His was an oral discussion and we were unable to take notes such that we might give a just account of the address, which was one of the best given. He first laid down certain principles which should guide in the selection of subject-matter. These were: (a) Whatever is presented should be something intended to make the pupil think. (b) Take subjects which are known; (c) Consider the utilitarian value of plants. The speaker commended the high school manual outline of botany. He said that the following points should be considered: 1. The botanical unit (the cell); 2. Differentiation. 3. Manufacture of food. 4. Reproduction. 5. Response to stimuli. 6. Growth. These several points were discussed at length and in a manner which should result in great help in the organization of the subject matter in botany. Prof. Brannon remonstrated against the half-year course, since a teacher can do at least three times as much in a year as in a half-year. He urged that the teachers should omit the word "purpose" and substitute "function" in its stead. He considers the greatest obstacle to excellent teaching of botany the lack of teachers who are prepared to teach the subject. One who has taken courses necessary to prepare him for this work can command far more money than the high schools can pay under present conditions.

The last paper read was that by Prof. Weeks on "Education as a Science." This was a scholarly treatment of the subject and well worthy the attention of the educators of the state. Mr. McFarland considered it of so much importance that he moved that the secretary be instructed to ascertain if he could not secure its publication in some educational periodical, and the motion carried. We do not have the paper at hand and will not attempt to give its points.

The boarding department under the supervision of the preceptress, Miss Bentley, entertained the members of the association and the normal faculty at luncheon in the new dining hall. The luncheon was all that one could wish for and did credit to the institution and to Miss Bentley. The hall is second to none in the state and is better than any other that the writer has seen. It is provided with every modern convenience, and is as nearly an ideal home for students as is possible in a dormitory.

Apparatus companies were invited to display samples of apparatus and the display was under the supervision of Mr. Pope of the Mayville normal, who received apparatus from the Chicago Apparatus Co., C. H. Stoelting of Chicago, L. E. Knott of Boston, and J. S. Hemmenway, of River Falls, Wis. The several pieces of apparatus were set up and inspected by many of the visitors.

The committee on place and time of meeting recommended that in view of the fact that this meeting desires to be of as great value as possible to the secondary schools, we meet at the same time as the general association of which this is a section. Adopted by motion.

The committee on nominations nominated C. C. Gray of Grafton as president, Prof. Chandler of the U. N. D. as vice-president, and Prof. C.

R. Travis of Mayville as secretary. Adopted by motion and the persons nominated were declared elected.

The committee on resolutions reported the following:

Resolved that the North Dakota Association of Science and Mathematics Teachers tender its thanks to the State Normal at Mayville for providing a meeting place for the association and for the other hospitalities so graciously offered.

Resolved, that we express our appreciation of the efforts of the president and the secretary in preparing the program and making the arrangements for the meeting.

The report was adopted by motion.

The attendance was good, considering that there were three other meetings of teachers in the state at the same time. About thirty visitors were present. Three who were to present topics were not present, hence these topics were omitted, as they did not send papers. The spirit of the meeting was excellent and it is believed that the association may become a potent factor for better teaching in North Dakota.

DEPARTMENT OF
SCIENCE AND MATHEMATICS

OBSERVATION AND TEACHING

BY H. L. BOLLEY.

In selecting this topic for a short address before the North Dakota Science and Mathematics Teachers' Association, I have done so, not because I feel any particular ability to deal with it, but because in my work I have often been brought face to face with the personal observation that most students as they come to college are very deficient in what may be termed simple observational ability. In attempting to account for this condition it is not an easy matter to summarize or to indicate the causes. Some might reply that it is not lack in powers of observation, but of perception. With this proposition I cannot quite agree, for with the exception of a comparatively few that are perhaps to be termed deficient, the perceptive faculties do not seem to be very crude or unsusceptible when the observations are properly made or directed. As indicated, I shall not attempt to place the responsibility for the plain fact that the observing faculties of our fifteen or twenty-year-old students are deficient further than to indicate that they seem to have an inordinate desire to get at big things as affecting human life or interests, yet are markedly deficient in the ability to see and appreciate the elements or details of any particular phase or phases of the subjects in which they are interested. Roughly speaking, perhaps it is due to too much book learning and explanations by teachers, together with too high an ideal of the importance of the associated doings of man, so that the pupil becomes unduly anxious to study history, philosophy and society and to do the large things of life before he has been taught to properly observe the details which these larger interests rest upon. As a child he is all observation, seeing and hearing undoubtedly being among the first faculties brought into active operation by the young child. Until the child starts to school one continuous series of questions is impressed upon his mother and other immediate helpers, to explain the things seen and heard. The observational powers are extremely bright, and anyone who wishes, can learn this, even with a five or six months old child.

About the age of six or seven, the repression process begins. The parents have become weary of answering questions, and often refuse to satisfy the curiosity aroused by the observing faculties of the child. The school work also begins, and the repression is more severe. In the atmosphere of the school room the child must remain silent, no matter what he sees or hears, and it is possible that right here is where the stunting of the observation powers most definitely begins. The child commences to learn that his superiors do not consider the minute things which he sees and hears, and, apparently, the minute things which they see and hear of material importance. He thus begins to slur them over or pass them by without making a mental record of them.

After working with classes of newly arrived students in botanical lines, I have been lead to the conclusion that they seldom see large things or small things with reasonable accuracy. In fact, in their daily routine of life they apparently seldom give a thought to any ordinary details, as of marking, coloration, odor, texture or quality with anything like the desire or curiosity that is previously evidenced in the unschooled child. The average high school graduate or graduate from the eighth grade may perhaps be said to never see anything smaller than an apple or potato, or larger than a cow or tree. In fact, the mind seems to me centered upon just such ordinary doings of people, the gross features of daily life, society, politics, business, invention, farm animals, buildings, and what not that cannot be defined or circumscribed. He sees the tree, the cow, the man, the house, or a business operation simply as objects, passes them daily without accumulating further information as to the details and facts. This is wholly unlike the unconscious methods of the child previous to school age. Living with trees most people know not a thing as to their character or details of any particular variety, bark features, life features, distinctive features of fruiting, etc. It is just a tree that they have passed or lived next to. The word "tree" takes the place of all plant characters. Possibly one in four who lives next to a particular kind of tree could tell you what color blossom it has, and probably not one in a hundred who lived next to it could tell you any distinctive feature as to its bark or branching. So, again, a bird flies over a hundred students, and not one in a hundred would know anything of the markings or habits of the bird. The word "bird" has been completely satisfactory to them since they first learned it. A man is met with and talked to by a number of people, but when called into court not one of them has observed sufficient detail to satisfy a court or jury of the identity of the person seen. The average farmer who buys a horse buys it after much the same manner. He sees the horse as an animal; the general form indicates about so many hands high, so much weight, and the color pleases his eyes. When asked why he selected that particular horse for his particular work he is apt to say he liked his ears or his color, as he is to name the characteristic features of the animal which are essential to the animal in order that it may be useful to the man for the particular service for which he buys it. Again the word "horse" and the object horse has been satisfactory. Careful details have not previously been observed and co-ordinated. In other words, it is perhaps a fair statement to say that with the average person objects as a whole satisfy the blunted observing senses and words placed into sentences satisfy inquisitiveness, curiosity or longing for information. Anyone who doubts this should place himself in touch with a Japanese student or rather undertake to instruct a class of five or six of them. He will then get some conception of what curiosity means, what a longing for real information means, what imitation means, and what ability arises from it. In the Japanese students who come to this country, in so far as I have met them, the conversation is one eternal question and the questions are directed upon details such as the average American has been passing over without consideration all his life. The

Japanese student wants to know why a thing is so. Our answer on account of our training is most apt to be, "Why, that is nature; just natural," which is equivalent to saying, "It is so because it is so." All the time one becomes aware that this questioner wants to know the primary causes or the minute features of the object, or details of its action, or the why and wherefore of social or ethical usages. Our own people do not have this inquisitiveness and we are not suited to associating with inquisitive people, so that we place a stigma on inquisitiveness and say that it is disagreeable, and get away from it. I am afraid this is trained into the student or pupil even before he leaves the grades.

The synonyms of "to observe,"—to watch, to note, to heed, to guard, to keep, to pay attention, to record, to comply with, taken together indicate the general definition of the power to observe, namely, to regard with attention or careful scrutiny as for example, to observe with the purpose of discovering or recording some detail or feature of some particular object, or for the purpose of observing the content or entirety of contour. The accurate observer notices trifles and details with interest. As, for example, noting the movement of an object, the shade or color, variation in form, intent of action, etc. To be called an observer is, then, to be characterized as one who not only sees things in their entirety, but records the essential details of their character. He is indeed a keen watcher who is engaged in systematic or habitual detection of details in their proper relation to the observed as an entirety. Upon the proper exercise of this function of observation depends the development of the perceptive faculties and finally of the judgment of the observer. Without accuracy of tasting, smelling, hearing, seeing, feeling and what other intuitive sense qualities one may possess, there can be no true or accurate perception, as I understand the distinction between these qualities, perception being a word intended to contemplate the receiving, collecting, comprehensive or cognition faculties. A person of clear perception is one capable of a systematic comprehension or summarization of the results of an attentive observation. Such a person, having exercised the various faculties of observation and perception to their fullest extent is in position to form a true concept or judgment, to make a statement or thought, in other words, is equipped for right thinking.

This belief of the matter, together with my observations, leads me to believe that in our teaching work too great attention cannot be placed on the retention of the inquisitive characteristics of the child, even into manhood and womanhood, nor can too much attention be directed to exacting from the pupil observations which can be checked or tested by a measure. By this I do not mean to indicate that there should always be exact measurement in squaring the observing process of the pupils; yet inexact observations should at least be continually checkmated, by the presence of the object or of the matters of detail observed, by the evidences through argument which the teacher can propose as to the inaccuracies, or by the combined reports of associated students on the same observation. Inquisitiveness on the part of the older pupils should be developed rather than repressed.

The Aim of the Teacher.—If I have analyzed the situation properly, the aim of the teacher in fitting himself for instruction work should, therefore, not be with a view of accumulating a large number of facts that he may prove interesting to his pupils with talks and lectures, for he is not there to entertain them, but is there rather to direct. A fund of observations, precepts and conceptions is of the utmost value to the instructor, but the writer believes that instead of repressing the inquisitive powers of the student that it is necessary for most teachers to exercise much repression upon their desire to educate others. The placing in the hands of the students all available information in a well written book in a thoroughly pedagogically arranged and systematized text is, the writer believes, the most destructive feature of our present method of education. A difficulty second to this is the carefully illustrated and thoroughly pedagogical and systematized series of lectures, covering the subject. This method of education, whether furnished to students in the grades, in the high schools, or in the colleges, comes about from our intense desire to push forward the ability and knowledge of our pupils with the greatest possible rapidity. The writer believes that this is very often done at the expense of the thinking ability and the investigating ability of both teacher, pupils and students. Too thoroughly systematized and accurate text books lead to too great accuracy of routine, and leaves the teacher with too little duties to perform in regard to the development of ingenuity, observation and inquisitiveness on the part of the pupils. Too complete information given in the form of text and lecture work floods the pupil with information before he has formed any basis through observation for reception of the same. This leaves him with great desires to do great things, to become a thinker or an actor in human affairs without having experienced sufficient interest and self-improving ability, which comes only from observing and working over available details. The well organized text book and extended lecture series places information far above his observing and working abilities. These conditions in secondary teaching, I believe, cause many of the pupils and students who have learned to slur over the details in early life, which most people seem or pretend to despise, to slur over more important details which no thinker or worker can do without great loss to his future success.

The time which I should take will not permit me to take up separately any particular lines of school work to place emphasis on features about which I have been speaking. It is, however, apparent that some subjects afford better facilities for observation and for centralizing the observing faculties upon details than others, but it is equally true that there is no subject in the curricula of secondary schools which cannot be so handled as to greatly facilitate the development of the powers of observation and the retention of the inquisitive nature.

I once had the pleasure of hearing David Star Jordan relate his first three weeks' experience as a student under the direction of the great Aggasiz. He expected to get some very interesting lectures and instruction upon biology and anatomy. Instead of such types of instruction he had placed before him what he supposed to be a pickled black bass far on

the road to organic dissolution and was told to go and look it over and to prepare a report upon what he could see or find out. He went to the laboratory, looked over and reported in about two hours. The next day, upon inquiry, he was directed to the same fish for a more close scrutiny. This rather weighed upon his sense of the propriety of such instruction. Displeased, he went at it with an angered vim, not reporting for several days, at the end of which time he again reported, only to be directed rather gruffly to look again and report. Each time more displeased and more angered in his sense of importance, he returned, determined to show his staying qualities as well as his observing ability. This looking at the exterior of an ill-smelling pickled fish is said to have been extended into three weeks without being allowed to do any dissection, and until the final report was reasonably satisfactory. It helped to make of Dr. Jordan perhaps the greatest ichtheologist of his day and one of the greatest of modern educators.

Even in the subject of language and word study, it seems to me the chief basis for accuracy and fluency is in the observation of the details of the use of words, phrases and sentences by our best writers. Mathematics is so exact in its requirements as to allow the teacher to checkmate the observing faculties and the perceptive ability of his pupil very closely. Perhaps it is only felt less in the fact that it is so thoroughly organized and systematized that many students forget that the formulas are founded upon the most exhaustive details, and allow the larger formulas to represent for them essentially the same position that the word "tree" holds in the biological knowledge of most persons.

It is the belief of the writer that this is the chief benefit which will come to our rural and elementary schools through the introduction of such subjects as elementary agriculture, animal husbandry, agricultural botany, domestic science and manual training. The details of such studies admit of virile observations which may be checked by other observations of interest at all stages of the work. These subjects are not as yet so thoroughly systematized and become so pedagogical in their methods as to allow them to be passed over with the same freedom of mind as the older, more systematized studies. Both the pupil and teacher will have to do some new thinking, and with this will come the general brightening of the observing powers, which will react with benefit upon all of the regular lines of study which have heretofore been in our school curricula. The viewpoint of life values is brought by such studies more constantly before both teacher and pupils. Interest cannot flag in the daily work upon such studies or lessons when brought into contact with any phase of study or learning which bears upon such matters of life interest. The student finds the connection of his studies with his greater aspirations growing daily more apparent, and his efforts more evident of reward.

THE CORRELATION OF THE PHYSICAL GEOGRAPHY WITH THE
POLITICAL AND COMMERCIAL PHASES OF THE SUBJECT.

PROF. M. N. POPE, MAYVILLE NORMAL.

During the last four years I have had the privilege of teaching geography in three of its phases—physical, political and commercial. I have taught the mathematical geography as well, but I purposely omit that, since I believe that it has been emphasized entirely too much in some quarters to justify its importance, notwithstanding the fact that it bears a most important relation to the other phases of geography, being in reality the foundation upon which the rest is built. All the mathematical geography necessary for an elementary understanding of geography may easily be crowded into two or three weeks, leaving the remainder of the time for the geography effects of which the relation of the earth to the heavenly bodies and to its own rotation and revolution is the cause. Because I have been teaching all three phases in the inadequate time afforded in the first year of the normal course I have become much interested in correlating them.

The work geography is derived from the Greek *Geo*, earth, and *graphy*, description, literally earth description, anything in, on, or outside the earth was considered geography by the ancients, all scientific knowledge being included in the study of astronomy and geography. At first geography was developed as an impetus to commerce and trade, especially by the Phoenicians. Later Marco Polo, Homer, Herodotus, Sir John Mandeville and others catalogued a host of very interesting geographical material which appealed to the natural interest of the people. Now in our own time the third or scientific stage finds its first important exponent in Carl Ritter, who promulgated the idea that geography is the study of the earth as the home of man, not a mass of technical or interesting statements about travel, geology, botany, zoology or astronomy. Today Mill fulfills the requirements of a definition of geography in its present day scientific and critical trend, which is accepted by many good geographers. Mill says that "geography is the exact and organized knowledge of the distribution of phenomena on the surface of the earth culminating in the explanation of the interaction of man with his terrestrial environment."

One of the greatest educators I have had the good fortune to know, maintains that there is a determining idea in education generally, and also in each particular subject, which is the foundation for the aims of the teacher, and determining the subject matter and its relative importance. If we do not have this determining idea in geography firmly fixed in our minds, hammering on it in our class rooms and keeping it before us in our study, the subject loses its unity. Physical geography becomes merely earth science or physics and chemistry applied to the earth, and commercial geography becomes the study of a mass of information on products, industries and commercial routes. This idea of disunited geography is wrong, the political, physical and commercial phases are interdependent; connected

by a determining idea which is the blood energizing the entire body of geography.

Now people differ as to what this "determining idea" is. Many educators get from Carl Ritter the definition, "Geography is the study of the earth as the home of man," and believe that without man there can be no geography. This is too narrow. Dryer says that "geography is the science which deals with the distribution and environment of all the features on the face of the earth." Such a definition is well enough for a broad, philosophical, college course in the subject, but in our elementary and secondary schools we must take the most important phase of geography, and find our determining idea in it. This is found in Mill's definition, when he says that geography is the exact and organized knowledge of the distribution of phenomena on the surface of the earth culminating in the explanation of the interaction of man with his terrestrial environment. For me, then, "the explanation of the interaction of man with his terrestrial environment," is the determining idea of geography.

In our common school geography we aim to have the pupils get a knowledge of the facts of distribution and of principles governing such facts together with a development of reasoning power, and ability to use the library and to interpret maps. Years ago we spent most of our time upon map work and location of places and products, omitting in large part the reasons for the distribution. This was little else than a study of uninteresting facts, being what we may call pure geography. Nowadays we are emphasizing the reasoning or scientific phase of geography and neglecting the maps and location work. We err today as truly as we erred twenty-five years ago, but in exactly the opposite direction. Both the pure and the derived geography are important, but we should not neglect the pure at the time that the pupil can most readily master it. The desire to cover all phases of geography adequately is mirrored in the introduction of geography into our high school courses of study. This high school geography is almost entirely of the derived kind, assuming that the pure geography has been mastered in the grades. The fallacy of this assumption is proven to me each fall when three-fourths of my entering class have no approximate idea of the shape of North America. The geography treated in the high school is of course physical and commercial. In looking over the high school manual I find both mentioned, but no definite time assigned for the study of either. For physical geography there is no hint of an aim and I find upon inquiry that the idea is as hazy in the minds of high school men as it is in the manual. I quote verbatim some of the answers to the question: "What seems to be to you the most fundamental purpose in teaching physical geography?" It is (1) "Study of the laws of nature which man may utilize." (2) "To acquire knowledge of the soil, atmosphere and effect of these upon life." (3) "To acquaint the student with the physical phenomena which environ him." (4) "To lay a foundation for other geographical facts." (5) "Practical knowledge concerning soil, plant and animal life, minerals, climate, etc." (6) "That the student may understand the natural changes and the conditions in so far as they affect man." (7) "To enlarge the pupil's view of geography

and to show the economic effects on life." (8) "As a key to commercial and political geography." (9) "(a) To develop the reasoning power of freshmen; (b) to cultivate the imagination; (c) to acquire some general and practical acquaintance with nature and a natural phenomenon; (d) to train powers of observation and inference; (e) to train to accurate description of observed phenomena." Now am I wrong in saying that geography needs definition and a determining idea? I maintain that the study of physical geography is necessary not as a course in elementary physics, chemistry, meteorology, or agriculture, but rather as a means of explaining the interaction of man with his terrestrial environment. When physical geography departs from that idea it has ceased to be geography and has no justification as such in our secondary schools. For this reason, when the high school manual requires laboratory work on the phases of the moon, those who follow it are not studying geography but astronomy.

The manual gives as the aim in commercial geography, "The explanation of industry and commerce of nations today," and says, "That commercial geography is a comparative study of the nations of the world, their commercial importance and their contest for the trade of the world." This may be true but we do not need that kind of geography in our secondary schools nor elsewhere outside special schools of commerce. What we do need is to be prepared by physical geography for a study of the ways in which man is using the earth, not only for his own benefit, but for the whole race. In fact, we want to study and explain the interaction of man with his terrestrial environment, showing as well as we may the "Fatherhood of God and the Brotherhood of Man."

All the high school superintendents from whom I have heard agree that correlation is very desirable and evidently take it for granted that the three phases *are* well correlated. A case even occurred where the superintendent was evidently chagrined that I should ask him if it was being attempted in his school, for he very briefly referred me to "any good text." For my part I have yet to see a satisfactory statement of this correlation in any text. Notwithstanding my firm convictions regarding its necessity I most assuredly cannot give the last word on the matter. However, I can briefly tell what I am trying to do in my own classes. In the first term's work we have political geography and are expected to cover the work given in the seventh and eighth grades in twelve weeks. Manifestly this is impossible, therefore our class of eighth grade graduates are given a course composed mainly of map work; locating important place names upon maps which they have drawn from memory upon the blackboard. It would surprise you to see how utterly devoid they are in regard to map ideas. The last two weeks of the term we devote to mathematical geography, taking up the form of the earth, its attitude, and the motions, with the proofs and effects of each, considering here in detail, with laboratory work, the change of seasons.

At the beginning of the second term the class is started in very elementary meteorology: (1) Air, its composition and properties; (2) the causes and effects of moisture in the air; (3) insulation as determined by the attitude and motions of the earth (its effects upon weather and climate being

my justification for teaching mathematical geography at all); (4) the effect of insolation upon temperature, both on land and water, and upon pressure which leads naturally to the study of winds and the different types of storms; (5) types of rainfall with the causes and laws of distribution, naturally follow the study of temperature and pressure. Now we are prepared for weather and climate. Weather is studied from day to day by the help of laboratory apparatus and weather maps and the climate of different sections of the world is studied from data and the student traces the reasons for each fact back into the physiography and a position of the country.

Meteorology is a step to the structure of the earth, weathering, erosion and glaciation. This study of physiography proper may be made concrete by excursions to river valleys, gravel pits, water falls and moraines and laboratory exercises on U. S. G. S. maps. Care is taken in reading these maps and from them we study types of young, mature, old and rejuvenated streams, of which our Red River is one. It seems to me in this section of the work that least time should be devoted to the ocean, tides, coast forms, volcanoes, i. e., phenomena least affecting man's life in general and that of our own students in particular.

Now we can profitably trace plant geography up through the causes found in mathematical geography, meteorology and physiography. In the same way the geography of animals and of man is dependent upon every bit of geographical material which we have studied. All this is a good foundation for commercial geography which is given in the third term. We start with the geography of the United States, her position in the world, her boundaries and protection, her physiographic regions and climate. Then type studies of her principal products and industries, i. e., coal, iron, corn, wheat, cotton, forests and manufacturing are given, always harking back to the meteorological and physiographical features which have made these possible and showing how man interacts with his terrestrial environment. Commerce is then taken up; routes, means of transportation, exports and imports are studied together with the principal cities of the nation, with the reasons for their importance and causes of growth. After this as many other countries as possible are studied along approximately the same lines, but of course with much less detail.

THE TEACHING OF AGRICULTURE.

SUPT. GEO. F. FORSTER, HARVEY.

Possibly enough has been inspiringly said and wisely written of the need, for our farming public, of a better and fuller knowledge of the science that is their own, but which they have seemingly disowned. Verily agriculture comes unto its own and its own receives it not. In ten years time, at present rates, we are told, we shall be raising less than enough foodstuff for our own use, and shall have to import, so fast is our population increasing over our crops. Yet the land will produce twice as much as it now does if the farmer but knew how to make it. The farmer could make more money than he now does if he but knew how. He could live better if he but knew how.

The farmer needs knowledge to organize, that he may be less at the mercy of the organized interests; needs knowledge to raise more dollars to the acre and to realize a more reasonable return on his investment; knowledge to tell a good milch cow from a scrub; to live a happier and fuller life, why not eight hours a day for the farmer as well as the hod-carrier? Obviously the need to enlighten Mr. Farmer really exists.

Rural free delivery, rural telephones, better highways and interurban electric railways are helping to waken our farmer brothers, but it is still as hard to get him to grow apples or strawberries as it was to get rid of the old brown pitcher of pan-cake "raisin'" that year in and year out stood on the back of grandma's kitchen stove and absorbed dust and microbes from October to April. It is hard up-hill work to teach Mr. Farmer what's what—but it is hard to teach anybody anything, anyway.

Next to the home-makers, of whom there are over twenty-five million in this country, comes the farmer. We are giving instruction in domestic science for the future benefit of the former large class, and very properly ought to preach the doctrine of the best ways of caring for the soil to the future benefit of the latter large class. And not only caring for the soil, but caring for the kitchen and the dairy and the hog-pen on the farm; raising better cattle as well as grain; and raising other things besides wheat. "Mix brains with soil," someone says. "The man with the hoe," as the representative of the second largest class of workers, needs and has a right to expect that some of the funds of education be spent upon him.

It may well now be said that we are, as teachers, better able to teach Latin and algebra and history than we are to teach anything of value about the farm. No doubt that this is true, but the time is fast arriving when the reverse is to be the case—or perhaps one should say the obverse—and so we ought to begin to prepare. So much as a sort of summary of the argument for the teaching of the subject.

The easiest way perhaps to enlighten the farmer is to instill into the present generation the great need of a knowledge of the subject, not so much the knowledge as the *need of knowledge*. If we in our state can

preach this until it is in the air, so to say, and a part of every man's equipment, just as much as the ability to add or subtract is, the knowledge itself will quickly enough come. The main thing that we should try to do for long enough yet, in the schools in general, is to set forth the great necessity of better farmers and more economical farming.

This being so, what need at the outset for finely equipped laboratories or school experiment farms? In any school, however small, the subject may be taught and carefully taught as far as pursued, to the end that this need of knowledge idea be disseminated. The rural school teacher has an opportunity to do something; the high school teacher a greater opportunity to teach the coming rural school teacher; but the teacher in the grades of the town schools has the greatest opportunity, because of the large numbers under her care, and because of their youth and impressionability. Nature study as already taught, need only be made less a measuring of the length of the cat's ears or the diameter and size of a lemon, and a little more a study of ways and means of earning one's bread and butter. Nature study as now taught will teach no one to observe except and only along the lines he has pursued his observation. Gaping at a heterogeneous mass (or mess) of school room objects gathered under a momentarily lifted cloth will teach one to be quick at naming a large number of the quickly vanishing objects—and that's every bit it does teach. It fails to assist me in picking out faces in a crowd and naming their owners, or in telling good seed potatoes from bad. Why not make our nature study a more sensible subject, and teach the things that function quickly into life?

We are prone to think in introducing our new courses in the commercial branches into our high schools that we must wait until we can get a thousand dollar appropriation from the school board before making a move; in putting in manual training, that we must have a special teacher and a full equipment; and likewise about agriculture, we fear to make a beginning without laboratories and trained teachers and several acres of land. Truly these do produce better work and greater interest, but it is not for the common schools to train agriculturists so much as to spread the "need of knowledge" doctrine, and to interest the young people in the soil.

This is not an argument for poor teaching, and I would not wish anyone to misinterpret me. As strongly as the next man do I preach scholarship and the need of thoroughness in one's work. I urge but this in the foregoing lines—let the teacher teach what she can, no more, and teach that to the best of her ability. Her teaching must needs be most trifling and ineffective to outdo some I have seen in the largest schools in the land even in our much vaunted Latin, in which there is no excuse for a poorly prepared instructor.

Again, if we are to reach the many, the subject of agriculture ought not to be kept for high school pupils alone, who are comparatively few in number. If we are to spread the doctrine widely, we need a larger audience than the high school affords. Schools here and in our neighboring states are already doing good work in the subject in the fifth and sixth grades even; the writer is doing so now in the seventh and eighth grades, preceded by thoroughly practical work in nature study in the earlier grades.

The following are some of the demonstrations given in these earlier grades:

1. To show the presence of albumen in milk.
2. To show the presence of carbon in sugar.
3. To show that plants give off water.
4. To show how to tie a square knot in rope; a weaver's knot.
5. To find whether large or small seed produces the better crop.
6. To study the capillary rise of water in the soil.
7. To find whether butts and tips of seed corn ears should be rejected.
8. To classify soils.
9. To find the best depth to plant seeds.
10. To study the nodules on nitrogen gathering plants.

In the eighth grade we are making this year a more thorough study of the subject, including a fuller study of the soil, the plant and how it grows, how to raise fruit trees, garden and field insects, plant diseases, domestic animals, farm dairying and flower gardening. In this grade the microscope has been used to some little extent, and although we have but four compound microscopes, we have progressed beyond our hopes.

To our high school students we have offered for two years a half-year course in agricultural botany, laying especial stress on the study of nitrogen gathering bacteria, rust, smut and other plant diseases; also a second half-year of bacteriology, following Conn's Bacteria, Yeasts and Moulds. (Ginn & Co.) The two half year's courses make a strong practical year course, and one as full of culture as the old academic botany, and far more interesting. Bearing in the idea that we should spread the need of knowledge doctrine, we have also made in our physics and chemistry as many excursions into the realm of agriculture as is possible. For example, we find that the Babcock tester, used in testing milk for butter fat, is the best kind of a piece of apparatus for demonstrating centrifugal force, relative specific gravities shown in the floating of the butter, the gearing for speed, and the other principles involved in the construction of the machine. In studying capillarity why not show how the principle functions directly into the life of the farm, with a lamp chimney, a piece of cheese cloth and a little soil?

In our study of plant diseases, we have been materially helped by a collection of many such fungi furnished by the botany department of the Agricultural College; in our study of weeds, by a little collection of weed seeds obtained there also. Special slides for microscopes we have been able to obtain from the Agricultural College and the near-by Valley City Normal School. To the extent of their ability, the state institutions have always stood ready to assist us. Bulletins from our own and neighboring Agricultural Colleges, and from the national Department of Agriculture, have been found useful, two of the latter especially so: One "Boys' Agricultural Clubs," and the other "Exercises in Elementary Agriculture," both by Dick J. Crosby. A book published under the direction of the superintendent of Public Instruction of the state of Minnesota, "Rural School Agriculture," is very suggestive and helpful in mapping out a course for the

grades. We also have a number of copies of Burdette's Elements of Agriculture (Ginn & Co.), which is full of excellent illustrations, many in color. Warren's "Elementary Agriculture," Jackson and Dougherty's "Agriculture," and Bailey's "Elementary Agriculture," are all good books for the high school classes to use in connection with the course in agricultural botany.

The list of apparatus actually needed for the grade work is not extensive, and may nearly all be found in the botany laboratory: A lactometer, a Babcock tester, a few Petrie dishes, some very large bore glass tubing, and a few extra slides for the microscopes, is about all we have added to the botany laboratory equipment so far.

We are planning to take advantage of the offer of the Agricultural College to send out lecturers to make addresses on agricultural subjects, and are planning to hold these in the high school assembly room, and invite in all who are farmers, or who are interested in farming, or who would like to get interested in the subject, allowing the children of the higher grades and the high school to attend, also.

To sum up, then, I do not think that most of the high schools are ready to introduce the thorough courses in agricultural subjects mapped out in the new manual, except perhaps the course in bacteriology; but that a great deal may be done in the course in agricultural botany, and in the classes in physics and chemistry in the high school I am assured, and in our own school we are also giving the one other half year course above mentioned. In the grades, however, we have the chance to do great things with but little energy and gratifying results.

SCHOOL MATHEMATICS APPLIED TO THE ENVIRONMENT OF THE PUPIL.

G. R. DAVIES, AMENIA.

In the School Review of last March there appeared an article which, though belonging to a different department of school work from the one now under consideration, may serve to introduce our discussion. The article was entitled, "Agriculture in the High School," and was written by F. M. Giles. Prof. Giles discussed the deplorable lack of interest in the sciences, and attributed it to the fact that in the main it is pure science that is presented, whereas the practical or industrial side ought to be made prominent with adolescents. He therefore advocated the teaching of agriculture in connection with the sciences, not primarily as an industrial course, but as a cultural one for all science students. Botany, chemistry and physics were then to be taught incidentally to the course in agriculture, being introduced as they were needed in connection with their concrete application. Prof. Giles' argument for teaching the sciences in this way is the familiar one that the way of approach to new truth should be through the concrete to the abstract, from relatively familiar environmental facts to broader generalized knowledge. It might be added that Prof. Giles does not advocate this method as a mere abstract theory, but as one which he has tried in his work in DeKalb and has found to be satisfactory.

In a recent number of the Annals of the American Academy of Political and Social science the same principle was incidentally brought out. The number referred to was devoted to the subject of industrial education. It was very noticeable that in the trade schools and the apprenticeship schools described, where practical ends are directly sought, it has generally been found best to teach the abstract sciences indirectly; that is, not to teach them at all as separate subjects, but to introduce them piecemeal wherever there arises a demand for them. The center of attention is always the concrete task, as some process of manufacture. When a difficult problem arises which requires, say algebraic methods, for its solution, then algebra sufficient for the purpose at hand is explained.

These two illustrations may serve to enforce that view of education of which Dr. Dewey is perhaps the best known exponent, and which is supported by leading sociologists, for example, Dr. Albion W. Small, of the University of Chicago. According to this idea education would engage the child in constructive activities relating to the home and typical industries. Information, abstract knowledge, and mental discipline would be acquired incidentally. To quote Dr. Dewey's words, "Information would not be amassed and accumulated and driven into pupils as an end in itself, but would cluster about the development of activities." "The only educative force in the world is participation in the realities of life."

It is evident that under such a conception of education pure science would be relegated to a very subordinate place, while applied science would occupy a high position.

From an ideal standpoint mathematics in the elementary and secondary school should undoubtedly be taught after the fashion thus indicated. In the school the activities of the world would be mirrored, and mathematical problems would not relate to mythical dealings of A, B and C, but to actual situations encountered in the course of constructive work. Practically, however, with the resources, equipment and traditions of the school of today mathematics cannot be so taught. "Our whole system of education," to quote Dr. Dewey again, "is highly specialized, one-sided and narrow—an education dominated almost entirely by the mediaeval conception of learning." This body of educational tradition—the "Heavy Past in Education," of which Prof. Kennedy wrote in the *Westland Educator* last winter—drags back any radical step. Thus the impetus toward a more rational arithmetic which came from the work of David Eugene Smith and others, did not articulate well with the old stereotyped system, and we now find publishers printing the boast for their new texts that they are not endeavoring to teach civics, geography or industry—meaning, of course, that problems from these fields are allowed no conspicuous place, a naive confession, indeed of the remoteness of our mathematics from human interests.

Under present conditions, then, it seems plain that we cannot attain the ideal in the teachings of mathematics, and it is not the ideal that it is the purpose of this paper to consider. The purpose, rather, is to suggest certain homely ways in which, with things as they are, we may tend in the direction of the ideal. The devices mentioned are many of them familiar, but in the form that they are given they are taken almost entirely from personal experience.

In emphasizing the application of arithmetic to the environment of the pupil I do not wish to convey the idea that such applications should constitute the whole curriculum. We cannot follow literally the example of the apprentice school or the maxims of Dr. Dewey, because the school, as already intimated, has specialized in abstract intellectual training and lacks the foundation of industrial equipment. The thought is rather that while we cannot attain the ideal it is possible to approximate it somewhat by applying the abstractions of arithmetic to the surroundings of the child and to contemporary life, in such a way as to improve the knowledge of the abstractions of arithmetic and to throw added light on the environment itself.

Arithmetic may be applied, first to a variety of agricultural and industrial problems from the immediate environment of the child. In this connection may be seen the value to the grade teacher of a knowledge of elementary agriculture. Knowledge of this subject puts her in touch with the immediate or incipient interest of the child, and the problem which she invents or constructs from data furnished by the pupil has a strong interest arousing power. Of course many texts give problems that deal with agriculture, but these are dead and inert compared with those that relate specifically to some known facts. Problems may readily be framed concerning cost of raising stock, profit or loss on the same, live weight and dressed

weight of meat, cost of fodder, rate of plowing and time required; yield of crops, cost of labor, nutritive ratio, balanced ration, etc.

Market quotations are given in the daily papers, and prices of groceries and other necessities may be made the basis of many problems. When the pupils are practicing on business forms and are making out bills, there is no good reason why the data used should not be obtained from the local market instead of taking the obsolete prices found in the arithmetics. Computations involving prices may be advantageously applied to some of the material on foods as given in the domestic science texts. Take the table in Wilson's "Domestic Science," which gives the nutriment elements in twenty-five cents' worth of various foods, and let the class reconstruct it so as to agree with the scale of local prices, and you will have some very useful practice work in mathematics, and at the same time discover valuable and interesting facts of domestic economy. Other home economic problems having a very practical turn may be made in connection with keeping an account of expenses and profits of poultry, dairy or garden; rate of use and total cost of fuel, and the like.

There are a number of books that will be of assistance in preparing industrial problems, among which may be mentioned, "Elementary Agriculture with Practical Arithmetic," Row, Peterson & Co., Chicago; "Hall's Practical Arithmetic," American Book Co., in which will be found supplementary chapters on industrial problems, and "Farm Arithmetic," Henry Field Seed Co., Shenandoah, Iowa.

Mensuration affords opportunity for much applied mathematics, and is, perhaps, the field to which it is the oftenest applied. Measurement and mapping of school ground is usually done in the fourth or fifth grade in connection with home geography. Plastering, papering and carpetting problems may be applied directly to the schoolroom itself, or to any room of which the measurements are available, but it is to be hoped that the intricate methods given in the older arithmetic will be discarded in favor of the simpler approximations in actual use among workmen. Measurements of capacity may be made from boxes and baskets, or from coal bins and cupboards. Farmers are often ignorant of how to measure the capacity of a bin in bushels. This should be taught thoroughly from actual experiments.

Such work as this in mensuration may be made to lead into elementary geometry. Geometric truths may be discovered experimentally with the drawing instruments—the best method of approach.

The ratio of diameter to circumference, the areas of parallelograms and other figures and many other geometrical truths, may thus be experimentally discovered, and rules for other measurements deduced. I have found the experiment a profitable one of allowing some of the boys in the introductory geometry work to go to a nearby stream to measure the distance across by the simple means of similar triangles. Similarly I have directed them to measure the height of a flagpole and of trees.

Children's games are said to furnish a field for applied arithmetic, but I cannot say much from experience as to this. In the primary grades we have tried playing store, allowing the children to measure out some commodity as sand, compute prices at so much per pound or per quart, and

make change. This of course is a common device. In the upper grades I have tried playing bank, with the loaning of imitation money, the making of deposits, the writing of checks, and other business forms. Such devices are generally found to be satisfactory.

Allied to mensuration is the mathematics belonging to physics. Ratio and proportion may well be applied to the laws of the pulley, lever, wheel and inclined plane. The laws of motion and the principles of mechanics may thus be introduced. That such knowledge is not taught more than it is in the common school seems to me to be a serious omission. I once heard a lady wondering at the marvelous strength of a horse which was pulling a house. The block and tackle and other apparatus used meant nothing to her. A person who does not understand the principle of the lever and similar contrivances is certainly not in a position to understand this machine age. Arithmetic applied to problems involving leverage, as in figuring the adjustment of an evenner for two horses of known weight may help to fill in this gap in our elementary curriculum. The more abstruse computations of physics would not of course be in place in the common school, and it is a question whether much that passes under that head in the high school at present, would not be improved if simplified and applied to conditions more commonly met with.

Local industries and private and civic institutions may be made to furnish data for many problems. Capacity of elevators, size and value of shipments, volume of business, insurance rates and premiums, wherever such figures are available, may add interest to many a problem. Rates of taxation may be figured from given assessed values and expense budgets, and the tax extended for real or imaginary persons. On one occasion I happened to obtain from a gentleman who paid taxes in several school districts, the amount of his tax and the assessed value of the property involved. The class computed and compared the rates. The teacher who looks about him will find a large amount of material of this sort.

Going somewhat wider afield from the immediate environment of the child, we may observe that much valuable material may be gathered and used that will incidentally reveal the world of human activities to the pupil in terms of number. In this way the pupil will be introduced to the study of society from the standpoint that has become very popular in more advanced work, and which inculcates exact and accurate thinking in regard to social and economic matters. In regard to more advanced sociological study, Dr. Ross says: "The hour has struck * * * to put mathematico-statistical knowledge in place of the prevailing loose qualitative reasoning." The work with which David Eugene Smith is associated, has, of course, tended toward this ideal. But there is something to be said for work which lies outside of the textbook, however wisely this may have selected useful facts. It may be well to put the child into touch with the best sources of our statistical information, at least those sources that will be available to him through life, and to teach him how to use them. As source books for data in computing percentages and averages I have found the Abstract of the Census, the Statistical Abstract of the Department of Commerce and Labor, the Year Book of the Department of

Agriculture, and the World's Almanac, very useful. When I first used these I would select the data myself but have lately merely indicated the data and let the class find it for themselves by using the index. This was suggested to me by a lecture I heard last summer by Supt. Kendall of Indianapolis. Supt. Kendall said that the day has gone by when the mere storing of information in the head can be considered educational, except as applied to certain narrow fields which require such mastery. Knowledge has so vastly increased that the most practical method today is to learn where to find facts, and how to appraise them and use them when found. He said that his favorite method of testing classes is to put into the pupils' hands some text, as a geography or history, and to see how quickly and accurately they can report on facts they are told to look up. He laid great stress on ability to use tables of contents and indexes so as quickly to discover the facts wanted. The point is well taken; and so in the statistical work in mathematics it may be worth while to let the pupils hunt out the facts for themselves. As examples of items which will lend themselves to arithmetical computations and at the same time throw light on social or economic conditions I might mention crop products, exports and imports, price fluctuations—in connection with which the important social law of supply and demand may be fixed—cost of living, per capita wealth, and degree of concentration of wealth, increase of railroads and in manufactures, increase in population, statistics of illiteracy, child labor, railroad accidents, etc. As may be seen, however, such data furnish opportunity for little besides the fundamental operations and percentage. In addition to such material may be mentioned statistics gathered from newspapers and magazines. I remember coming across and using some figures that revealed very clearly the unearned increment of a certain hotel property in Duluth. A high school class, after making the necessary calculations, were able to see how a part of the earnings of capital is drained away into the hands of those who have contributed nothing to the wealth which they are absorbing. Many magazine articles contain most valuable statistical information from which problems may be arranged. As examples of such articles I will mention, "The Call of the West," by the late Governor Johnson of Minnesota, in the World's Work for October, and the series of articles beginning in the November number of the same magazine by James J. Hill in regard to agricultural interests. In the latter some very interesting figures relative to population and food supply are given.

It is essential in applying mathematics to the environment that a teacher be always on the watch for material. Perhaps a mason is setting strings to mark out a foundation, and measures across a corner to test the right angle. Here is an illustration which the pupils may perhaps see for themselves of the laws of the right triangle. Or an artesian flow is struck which fills a pail in so many seconds, and gives an opportunity to compute rate of flow. Or a steam plow passes the schoolhouse. The pupils themselves will be able to obtain the data by which the new machine may be compared in speed and in saving of labor with the old. Much of the material gathered is worthy of preservation for further use;

this is true of data concerning taxes, property valuations, shipments and the like. For this purpose a small card index outfit will prove the most convenient. Thus a valuable home arithmetic may be compiled for supplementary use.

To speak briefly of the mathematics which belong more properly to the high school, I believe that the attacks made on the abstract mental-gymnastic portions of the algebra are well founded. The subject needs to be simplified to those cases which have direct practical bearings, and to have these cases brought as far as possible into touch with realities. The most useful part of algebra may and should be taught in the sixth, seventh and eighth grades. As R. J. Alely said before the National Educational Association a year ago, "In percentage and interest most of the indirect cases * * * should not be treated arithmetically, but should be handled by means of the equation." In my own experience I have found that it is entirely practicable to do this; that pupils not only handle the arithmetic more readily, but they will afterwards easily complete the elementary algebra of the high school course in the first half of the ninth grade. It is sometimes objected to the indirect cases of percentage that they are not practical, yet this is hardly true, for computing rate from base and amount is commonly met with. I presented to my seventh grade recently a peculiar case of this sort which I had just come across. I had been ordering goods from a catalogue furnished by a merchant. In the front was a slip which should have been removed, in which it was stated that the discount to the merchant was fifty per cent, and that he should allow his customer forty per cent. It was worth while being able to see that the merchant's gain in such a case was really 20 per cent instead of the apparent ten per cent. Exactly the same principle is involved in the apparently modest earnings on railroad and other watered security, in fact the same element runs through to a greater or less extent practically all the earnings of capital. It would be well for the public if it could do a little calculating on its own account in these cases. Percentages are so commonly used that the indirect cases should certainly be taught, but by the use of the equation they may be solved as easily as the direct case.

In the attacks made by educational reformers upon our more abstract studies, one usually hears more against algebra than against geometry. Yet I think that the case against geometry as it is usually taught, is stronger than against algebra. For remoteness from actual conditions and practical uses, for pure mental gymnastics and pedantic reasoning, geometry is unsurpassed. Think of wasting a page of logic in convincing an imaginary opponent that only one perpendicular can be drawn from a point to a line, or of using precious time in *proving* that all right angles are equal. One cannot help feeling that there is something wrong somewhere with the artificial, scholastic proof, which theoretically is so efficient, but practically is not half so convincing as a little experimentation with drawing instruments and an informal explanation. I take pleasure in reading in an address before the National Educational Association, the following: "The labors of men like Pasch, Peano, Veronese, Hilbert, Klein, Russell

and others are making it clear that the subject of rigor in geometry is one of extreme delicacy. It appears that our textbooks are full of hidden assumptions and that their usual boast of rigorous presentation is ludicrous; * * * the * * * teacher feels vaguely, though instinctively, that his subject is in need of repair."

Of course no one denies the value of geometry. The thought rather is that instead of making it an exercise in abstract logic we should make it a means of interpreting actual things. It should be applied to mensuration, mechanical drawing, manual training, carpentry, and so on. In a workman's handbook entitled "Practical Carpentry," I recently came across a chapter on carpenter's geometry that seemed to me to have the right ring. Here geometry was used in making various constructions and tests. I submit that there is more reason in testing whether steel squares are accurate, than in proving that all ideal right angles are equal.

The theoretical and arbitrary methods of geometry suggest a passage from Ward's "Applied Sociology." Dr. Ward says: "Most of this so-called knowledge so difficult to acquire is * * * largely abstract reasoning, by which is meant reasoning without anything to reason about. This is and ought to be difficult, because it is useless. But as soon as a real something * * * is furnished to the mind it is not only readily perceived, but easily reasoned about by all sane minds."

Whether or not the devices that now have been enumerated are altogether sound, I believe that the general idea of putting school work more directly in touch with actual life can hardly be questioned. Social progress is rapidly compelling a thorough reorganization of school courses so that they will serve to introduce the pupil to a real world instead of merely to exercise his mind with abstractions. And the impetus to these reforms is coming not from within the school system, but from without.

As I heard Dr. Elliott of the University of Wisconsin say last summer, it is to be regretted that the reforms which education is now undergoing are coming about through forces outside of the school, and that those who have direct management are but little interested in the readjustments. It would be well for us of the teaching profession to see ourselves as others of the intelligent and leading classes are seeing us. In order to emphasize the viewpoint referred to, I wish to quote from an article which appeared in two numbers of a leading magazine recently. The article is "The Bankruptcy of Education," by Frederic Burk, president of the San Francisco State Normal School. President Burk shows that the theories of mental discipline on which the older pedagogy was based have been disrupted by modern thought. Speaking of modern methods, he says, somewhat sarcastically:

"We send the child * * * to school. To develop his reasoning faculty we put him upon the trapeze of mathematics. We teach him factoring so that by placing $(a=b)^{99}$ upon the board, he will cover one wall of the school room with the factors in ascending and descending array; we teach him that touching and ethereal proof that $a^0=1$; we teach him that epoch making theorem that a straight line is the shortest distance

between two points, and finally we top off his instruction with the binomial theorem. Now his reason is developed."

After taking up history and other studies from the same standpoint, he comes back to mathematics and says:

"If the reasoning power developed by proving that $a^0=1$ could really be transferred from algebra to the agricultural problem of making two blades of grass grow where one grew before, then might we easily capitalize the persistence of sin and transfer it to the weary saints who distribute tracts among the heathen. If, in fact, mental powers developed by disembodied school exercises divorced from all life connections could be unhitched from unrealities and hitched to realities, then, as we schoolmasters have dogmatically asserted for centuries, education would be as easy as our pedagogy has so sonorously assumed."

In his concluding article he says:

The alternative * * * repudiates those exercises such as Latin or algebra which in themselves are acknowledged to be unused, except as mental trapezes in the schoolroom. It requires that the pupil's energy shall be centered upon the mastery of those things which existing world life requires of its active and productive journeymen."

It seems clear that our school mathematics needs to be brought down from that remote plane where most of our so-called reasoning has moved. The study should reveal to a student, not a wilderness of figures and rules and theorems, but a world of human industry measured, in so far as may be, quantitatively, and using understood measurements and mathematical processes in its activities.

HOW MAY WE GIVE SCIENCES THEIR TRUE CULTURAL VALUE
IN THE CLASS ROOM.

SUPT. J. S. FRENCH, MINNEWAUKAN.

How may we give sciences their true cultural value in the class-room? I will begin this discussion with a trite but true warning: "The theory of any kind of education as set forth by its partisans, does not necessarily represent that education as it is actually received by the student."

I remember that an exponent of the sciences once said to me, somewhat excitedly, "But you don't give the sciences their due. The sciences have a cultural value just as much as the humanities." A man who got mad and left his church, *may* live a Christian life in the privacy of his own home; but as we all know, he almost never *does* do so. Likewise the science teacher who is rushing his classes through a crowded course in Botany, Geology, Physics or Chemistry, *may* stop by the wayside and have his pupils "at Nature's table feast the ear and eye with joy and wonder," but it is a lamentable fact that most science teachers don't try to do it, and that many of those who try, fail.

It is a glorious thing to be able to "look through Nature up to Nature's God," but most men's early training and daily labor have been away from, not toward, that ideal. How many, think you, of the thousands of men in this state, who recently "went forth under the open sky," to harvest wheat sixteen hours a day and often seven days a week, had the time, the inclination or the power, to "list to Nature's teachings." How many of them saw anything in the landscape except dollars? How many of us teachers thoroughly appreciate and enjoy the cultural value of the sciences we are trying to teach? How many of us have succeeded in instilling that appreciation in our pupils? How many of us would like to do it? I have chosen this subject, because I believe in its importance and wish to know more about it.

Culture involves a sense for the beautiful. There are students of botany who never saw the beauty of a rose; educated young people who do not enjoy even a Dakota sunset. Fortunately these defects in their natures can generally be remedied; but generally, too, there is no one to do it except the teacher. Right here, I think, is the key to the problem. If the teacher himself honestly loves and enjoys the beauty of nature, his pupils, with all the receptivity of boyhood and girlhood, will loyally strive to love and enjoy it too, and as their reward they will, with a little guidance, unconsciously develop a sense for the beautiful themselves.

Culture involves an intelligent, active interest in humanity. The study of agriculture and of domestic science ought to quicken this interest. The graduate need not be filled with a selfish eagerness to get back home and, with his superior skill, outstrip his despised neighbors in the scramble for gain. If his teachers have really succeeded in educating him—if they have pointed his sympathy to the mass of inefficient, misdirected toil of our country's farmers, and to the far more pitiable and helpless condi-

tion of the peasantry of some other lands—in short, if they have educated his heart as well as his hands and head, then that training will give to the world not one capitalist, but one *man of culture*, that is, one man with an intelligent active interest in humanity, and with him hundreds of other men whom he will raise from drudgery to competence and independence. Science rightly studied is a humanity.

But culture is more than this. Culture involves a sense for the true meaning of life. It involves an appreciation for the necessity for God; the omnipotence of God; the love of God.

A God is necessary. No student, young or old, who studies carefully, intelligently, the working of the marvelous laws of sciences, dares to stand for a moment on the pedestal of atheism. When my pupils in Chemistry and Physics have studied Newton's Laws of Motion, the Law of Universal Gravitation, the Laws of Definite and Multiple Proportions, and many others, it has been to me a privilege to remind the young people, that *behind* these laws so beautiful, so perfect in their working, there *must* stand a Master Mind who made all law. When in physiology we have considered the human body in its beauty of form, its triumph of minute structure, the cunning of its workmanship, the perfection of its adaptability, and when we have considered the gross, the absurd impossibility of all these myriad atoms in every living being falling into their proper places unaided, through the working of the Law of Chances, it has been to me a pleasure to lead my pupils to state for themselves the inevitable truth, that in the light of science atheism cannot stand, agnosticism cannot stand, God must be!

But the summum bonum in all cultural training is that the student shall come to appreciate the power and love of God; and it is within the province of the sciences, rightly taught, to develop this appreciation. Right here, fellow teacher, you may win your greatest success. But right here, too, many a college professor has failed. If it were necessary, I could name to you institutions of higher learning, which have a well-earned reputation for making such failures. Let me emphasize this point. The sciences may be so mistaught that, in the accumulation of barren facts, the student will miss what he might have gained, will lose the appreciative power that he had before, and will receive a distinct impetus away from the source of all truth.

Charles Darwin not only lost his early love for Shakespeare and the poets, but they became positively distasteful to him. Even grand scenery lost its old power to move him. His mind seemed to have become a machine capable only of drawing general laws from observed facts. He himself lamented the change, and wondered whether it did not indicate a weakening of both intellectual and moral power. All these statements I have taken from his autobiography. And we are all familiar with those young, pseudo-educated, would-be scientists, who scoff at Christian faith, who have lost nearly all their ideals of the beautiful and the good, and who have remaining only their own opinionativeness coupled with a pile of scientific facts which they can neither understand nor apply.

Over against these, I wish to put the example of a scientist and author of an earlier day; a man who got from the sciences their true cultural value; a man whose wisdom consisted not in the discovery of many facts, but in understanding what he did. He studied astronomy and exclaimed: "The heavens declare the glory of God!" He studied geography and concluded: "The earth is the Lord's and the fullness thereof." He studied biology, and in the one hundred fourth psalm through twenty-three verses he ponders upon the perfect articulation between the animal and vegetable worlds, and finally cries out in an ecstasy of joy and reverence: "O Lord, how manifold are thy works; in wisdom hast thou made them all: the whole earth is full of thy riches!"

So then, to recapitulate, these seem to be some of the ways in which the study of sciences *may* lead to culture. It may develop the aesthetic nature of the student. It may give him an intelligent, active interest in humanity. It may lay a sure foundation for religious faith, and may cultivate that most unamerican of all good traits,—the habit of reverence. In short, it may make of him a cultured gentleman, and not a mere depository of facts.

Finally, if these possibilities *do* lie within the province of science, then ladies and gentlemen, does not this phase of the subject deserve more attention than it generally receives?

WHAT BOTANY SHOULD BE TAUGHT IN THE FIRST YEAR
OF PLANT STUDY.

PROP. M. A. BRANNON.

It is understood that this discussion shall be applied to the work offered in the high schools of North Dakota. It may be well to state at this time that there is no desire on the part of the botanical department of the University to dictate the character and quantity of botanical study which shall be given in the high schools of this state. Undoubtedly the colleges and universities of the country have endeavored to dictate to the high schools entirely too much for the good of general education in the past, but fortunately the "good old times," in this sense of the word, have passed away and the high schools are beginning to realize that they have a service to render to the community which includes not only suitable training for admission into the Freshman year in colleges, but also includes training suitable for those whose school days close with the high school course. It is in no spirit, therefore, of dictator, but rather in the spirit of a friendly and sympathetic co-worker that the following suggestions are offered.

In order to answer this question intelligently and satisfactorily it is necessary to agree upon certain principles which are fundamental and should underlie the course in botany irrespective of the choice of material which makes up the subject matter of the course. Two of these basic principles are, first, the selection of material which touches the life of the pupil, and, second, the presentation of such matter from a utilitarian and economic standpoint as well as from the viewpoint of more technical and scientific consideration. Relative to the first principle, it may be said that it is the natural course and therefore should be the pedagogical method of presenting the botanical problems. It is well known that the mind of the child, as well as that of the adult, reasons most easily from the known to the unknown. Surely then, it were a commendable principle to recognize and adopt in determining what shall constitute the first year of plant study. The second, or utilitarian principle, appeals to the mind of the pupil because it gives him a concrete and attractive anchorage for the botanical discussions which otherwise are sometimes somewhat abstract and abstruse.

In respect to a detailed outline of work, it should be stated that the last edition of the high school manual for the North Dakota schools, has an excellent presentation of the biological work proposed for the first year of study. This paper heartily sanctions the proposed one year course in botanical instruction there set forth. Emphasis should be placed upon one year rather than half a year of botanical work. This should be done first, because it is impossible to consider in an adequate degree the essential biological principles in less than one year of study; second, emphasis should be placed upon a year of botanical work because it is desirable that perseverance and continuity of study in all subjects rather

than fragmentary work, covering a portion of the year, should be encouraged; third, observation of plants during an entire year is necessary to give a proper conception of the life cycle of the plant, a cycle which includes germination, growth, nutrition and reproduction.

Emphasis should be placed upon a clear understanding of the preliminary facts concerning the structure and work of the living cell. The cells in a leaf of *Elodea* afford admirable material for the introductory study of cells. The cells along the middle rib, the cells between the middle rib and the margin of the leaf and the cells which compose the marginal teeth of the *Elodea* leaf, furnish an interesting series, both illustrating the essentials in the structure of a typical plant cell and also affording an interesting basis for comparison of form and content which have been largely controlled, it would seem, by the forces which act upon the respective portions of the leaves in which these cells are found. Both structure and function of the cells may be studied most profitably from the living material of this plant. The *Elodea*, or "ditch moss," sometimes also called "water weed," is widely distributed and interesting, and any school could probably secure samples of this in the autumn and keep it growing in a quart jar of water during a large portion or all of the school year.

If it is desired to show the general principles of plant evolution, it is undoubtedly wise for the teacher of botany to secure as much living material as possible, representing the algae, mosses, ferns and flowering plants. This should be arranged before the school session opens and wherever the living material is inaccessible, preserved material may be secured from laboratories such as that at Woods Hole, Mass., Cambridge Botanical Supply Company, Cambridge, Mass., St. Louis Botanical Supply Company, St. Louis, Mo. While the evolutionary principles are being developed by the study of the illustrative material referred to, it will also be possible to include definite lines of utilitarian studies. It would seem wholly fitting in North Dakota to make a detailed study of the general structure and work of the wheat plant, of the box elder tree and the black mustard in order that high school students might have a general acquaintance with the cereal plants which play so important a part in the economic activities in this commonwealth, also that they might have some definite knowledge of the structure and work of trees, so that their interest and support might be secured for the pressing demands incident to our constant campaign for the growth of shade and fruit trees in North Dakota. The study of the black mustard would be justified because of the great economic bearing which weeds and their distribution in seed grains has on the total production of crops in North Dakota.

In addition to developing the general principles of evolution and in addition to the utilitarian studies which have been proposed, a third line of work should be recognized and, wherever possible, should be prosecuted in the first year of plant study. This is the study of the relation of plants to their surroundings and to one another, the phase which is known as ecology. To be sure this will have to be done in an elementary

way, but it is of such importance that it should not be neglected in any course extending through a year of high school work.

A fourth line of botanical work which should be offered, possibly as an incident rather than as a special end of botanical study, is that which will acquaint the pupils with the names of the plants in their immediate neighborhoods. If the common and scientific names are used through the year of plant study, the pupils should know from 75 to 100 of the plants with which they are in daily contact, and the observations conducted upon the stems, leaves and roots of these plants will furnish no small amount of valuable material for the development of their powers of observation. Having gained this general acquaintance from day to day with these plant forms, they will be able to acquire an acquaintance with the manual during the last weeks of the year's work which should enable them to identify with reasonable ease most of the common plants common to their own surroundings.

The subject of this paper does not contemplate a consideration of local situations relative to equipment and proper training of teachers, but these are of such primary importance that it may be proper to interpolate a few remarks with reference to them. On the whole the situation in most of the first class high schools in North Dakota is excellent and encouraging. With the exception, however, of two or three of the leading schools of the first class, there has not been quite the differentiation of subjects and consequently the employment of special teachers in the North Dakota high schools that is found in the average first class high schools of some of the older states. I believe there is ample room for missionary work in this direction, and that all the educational agencies from the state superintendent down should lay hold of this problem and endeavor to encourage more general practice of hiring special teachers, notably in the science subjects, than is now practiced in the majority of our first class high schools in North Dakota. I have been led to believe that the appropriations for equipment have been more liberal than the appropriations for the employment of special teachers in our North Dakota schools. Until both equipment and special teachers are provided it will avail little to outline a proper course for the first year of plant study, because we shall have simply the theoretical possibility set before us without having the ways and means provided for realizing the attractive prospective course. In this immediate connection it would be most desirable if those who are now teaching high school botany in North Dakota high schools would take special courses during the summer in such institutions as provide special opportunity for training teachers in the science of botany. There are notable opportunities for summer study in institutions outside of North Dakota and also within our borders. Special opportunities and inducements will be offered for teachers of botany in the attractive lakeside station at Devils Lake, and it is hoped that the teachers and students in the North Dakota high schools will be free and anxious to avail themselves of the rare opportunities offered at this attractive station, located on the Chautauqua grounds at Devils Lake.

Having outlined the year's courses of study, beginning with the cell and extending on through a study of tissues, as seen in the simple plant, Elodea, and other flowering plants, followed by the development of evolutionary, utilitarian, ecological and systematic viewpoints of plants, it remains to add one word of protest against the heresy so common in texts and with teachers of biological subjects. This protest is against the employment of the word "purpose," when "function" is the term which should be used to express the idea intended. To illustrate, it is a common statement in text books that the hair and wings on seeds are for the *purpose* of distributing those seeds, that the thorns and the spines on plants are for the *purpose* of protecting the plants against animals. Such illustrations as the foregoing are wrongly interpreted when used as examples of purpose. Purpose implies that the plant has intelligence and has developed these appendages to the seeds, and the forbidding spines and thorns of the stems that it might scatter its seeds and in order that it might protect itself from devouring animals. As a matter of fact no intelligent instructor believes such unscientific statements, and yet many are unconscious teachers of just such foolish and unscientific ideas. The difficulty may be wholly avoided, as has been stated, if the word *function* is used in place of *purpose*; and an explanation of the development of these parts may be gotten through a study of variation, survival of the fittest, and the transmission of hereditary qualities. A teacher of botany who adheres to a rigid scientific interpretation of the facts observed, in no way denies that there is purpose in the great realm of nature, but he does protest, or at least he ought to protest, against belittling the proper idea of purpose in nature. By ascribing purpose to the plant organisms, which are eloquent in their testimony to the fact that they are the living records of living matter, which has responded to stimuli applied in various ways through the countless ages, according to great physical, chemical and biological laws, which have been established, as all may agree, by a great Law Giver, to Whom alone purpose in nature may be referred, one does violence to science and minimized intelligence.

DEPARTMENT OF
HISTORY, CIVICS AND SOCIAL SCIENCES

MINUTES

OF THE DEPARTMENT OF HISTORY, CIVICS AND SOCIAL SCIENCES.

Minot, N. D., December 28, 1909.

The meeting of the section of History, Civics and Social Sciences of the N. D. E. A. was called to order by the president, Superintendent H. L. Rockwood of Enderlin, N. D.

In the absence of Miss Turner of Valley City, a motion was made and seconded, electing Miss Palmer of Larimore, N. D., to fill the position of secretary.

The following program was then listened to:

1. President's Address—"Our Possibilities," Supt. H. L. Rockwood, Enderlin, N. D.
2. High School Museums and What Can Be Done With Them, H. C. Fish, Bismarck.
3. Making History Interesting to Those Not Liking It, Miss L. Hedwig Burhn, Enderlin.
4. How Can the Teaching of History, Civics and the Other Serial Sciences Be Made More Efficient?
 - (a) In the Rural Schools—Miss Gay Hall, Ward county.
 - (b) In the Graded Schools—Miss Phoebe L. Minsari, Minot.
 - (c) In the High Schools—Supt. W. A. Godward, Devils Lake.
 - (d) In the Teachers Training School—R. M. Black, Wahpeton.
 - (e) In the University—Dr. Wallace N. Stearns, University.
5. A Summary and a Suggestive Plan of Co-operation. Prof. Wm. B. Thomas, Jamestown.
6. Discussion. Dr. F. M. Gillette, University.
7. An Explanation of What the State Historical Society is Doing in and for the State. Mr. H. C. Fish, Bismarck.
8. Business.

A general discussion of the work of this department of the N. D. E. A. was followed by the election of officers, which resulted as follows:

President—Prof. R. M. Black, Wahpeton.

Vice president—Prof. Wm. B. Thomas, Jamestown.

Secretary Treasurer—Bertha R. Palmer, Larimore.

Directors—Dr. J. M. Gillette, Supt. M. M. Davis.

Chairman Committee on Biography—Dr. M. W. Stearns.

Chairman Committee on Travel and Adventure—H. L. Rockwood.

Chairman Committee on Indian Myths—Dr. O. G. Libby.

BERTHA R. PALMER,

Secretary pro tem.

OUR PROSPECTS.

H. L. ROCKWOOD, ENDERLIN.

Ladies and Gentlemen: The prospects of our department cannot well be discussed without giving a little of its past and its purpose. A brief summary of these points will therefore be pardoned. The first meeting was held on January 2, 1908. On the following day another was held which resulted in an independent organization. The purpose as outlined at that time was: First, to afford a working center for the solution of problems connected with the teaching of the social sciences and to sustain a vital interest in the subject; secondly, the compilation and publication of such local material as can be used by teachers to arouse interest among their pupils and others in the early history of our state. To the writer at least these things seem to be a most worthy purpose.

At the meeting on January 3d, a constitution was adopted, regular officers and an executive committee elected. This executive committee met on January 25th and recommended chairmen for committees on publication, consisting of biography, travel and adventure and Indian mythology. They also suggested that the dues be reduced to fifty cents per year, which would entitle the member to an unbound copy of the report of the State Historical Society. These recommendations were adopted by the association.

One June 10, 1908, in the University gymnasium, the first program was given. While the attendance was small the meeting was a success in every particular and argued favorably for the wonderful possibilities of the organization.

The next meeting held was at Valley City in connection with the N. D. E. A. Owing to conflicting dates and other reasons the meeting was not largely attended. However, an excellent program was rendered and some important business transacted. To accomplish the first purpose of the organization it became evident that it should be made a part of the N. D. E. A. To this end a petition, asking to be made the Department of History, Civics and Social Sciences, was circulated, signed and presented to the secretary of that association. Considerable objection was raised, but after discarding the constitution, dropping the regular dues and promising not to expect representation on the executive committee of the state association, we were admitted to membership.

We are now gathered for our half day session. What our success will be depends on us. Those who are to read papers have nearly performed their part in making the meeting successful. While that is a large portion of the program the discussion of them if generally engaged in will be the most valuable feature of the gathering. There are problems in connection with the teaching of every branch. This department is supposed to afford the center for the solution of the problems in our line. We have seen and heard some very serious objections raised to dividing the N. D. E. A. into so-called vertical and lateral sections. The most serious being

the danger of killing the state association. The writer is now and always has been in favor of such divisions but certainly for no such purpose as killing so valuable an institution. Having been one of those who took the initiative in this move he desires to explain his position and if there is any to offer, a little argument in favor of the same. Year after year we have gathered in the departments of County Superintendents, Higher, Secondary and Primary Education. These divisions are all very good and should be continued. However, it throws only those together who are or claim to be practically on a level in the educational world. We are not apt to admit here that the person preparing the paper is much our superior. He likely is not. However, the paper is the result of careful study and if properly discussed should be and certainly is highly beneficial. Nevertheless it seems to the writer that the greater part of the time of the departments as formerly constructed could well be spent on school or department administration and related subjects. When it comes to the problems in a given class it would seem that their theological place would be in a department composed of teachers of that particular subject or others especially interested in that line. Does it not stand to reason that the young teacher could come nearer a solution of a problem in a given subject if she could attend a meeting where sits the sage of the educational world, the university professor, who has made that subject a life study, and having mastered it will serve as a safety valve preventing radical changes or errors in the foundation of their educational life; also by his side is the high school teacher fresh from his college course, the grade teacher who desires to stay with the younger people, and the rural teacher, just entering the field. A natural objection is that the questions will never be brought up. If it depends on those gathered in the meeting to state their difficulties many never will come up. Any wideawake teacher will find them though. Could we not arrange to get a blank into the hands of every teacher in the state which would give each an opportunity to report his or her difficulty. Every county superintendent is sending out letters to each of their teachers. An inclosure would not be impossible. Every city superintendent is communicated with anyway. They could be supplied with blanks for their teachers. These questions could be classified by the secretary. Some would be used on the program, some published in form of questions for general discussion, while the rest might possibly be referred to the state educational journal and through it have them answered or at least discussed. This seems to the writer not only possible but wholly practical if carefully carried out.

But few progressive people will dare argue that the teachers institute is valueless. Here we usually have the more experienced teacher acting as an instructor for those younger in the business. If the present plan works out and all classes work together we will have all the elements of the institute in our meetings plus the advantage of the discussions and the debates that will certainly arise. It is true that the greater lights will receive the least amount of benefit. What if a struggling novice touches the seam of their garment and some strength does depart? Does it not fall on fertile ground? Will it not return an hundred fold? If so, is not this

sufficient recompense to the loser? Yes. And enough said about that. It seems to the writer that there is no need of advancing argument when all can and will see that, if those who are especially interested in any one subject coming as they will from the university, the college, the secondary, the primary and the rural schools, that that question will receive attention from angles which would be impossible to any one of the divisions working by itself. Will you who came to this meeting like "Doubting Mary," ponder the question carefully and in so doing remember that we came together for the express purpose of discussing our own problems. You are not only welcome but cordially invited to throw off your cloak of doubt and enter into the meeting with the same zeal that your boys and girls enter into the game of "pom pom pull away," which is so popular on every school ground. If all will do this and there is not a tremendous amount of benefit derived from it, then the writer stands ready to surrender his position. "Come now and let us reason together, saith the Lord," could never have been more applicable than right here. So then, in closing this phase of our paper we would say, come now and let us reason together. Let us throw away our prejudice and settle down to a careful consideration of our common problems. In a word let us make the most of our opportunities to give and to receive light on these, the most interesting and among the most beneficial subjects in the school's curriculum.

The second part of our aim would be accomplished much more readily with the enlarged field and increased interest which the present plan will certainly bring. The material is abundant. There are those in our commonwealth now whose biography would be as interesting as those of our New England settlers, and at the same time come from their own lips. In the realm of Indian mythology no state or country can boast of an equal of ours. Would not this material make the most interesting kind of reading matter? If so, when a more opportune time than now? When once we have the facts, could not this same material form a large part of a supplementary reading book? If so, would not a clearer knowledge of and an increased interest in our state's early history result? There can be but one answer to these questions. To make the most of these opportunities, those who are chosen to the chairmanship of the committees on publication should not accept unless they are ready and willing to perform the duties connected with the same. In choosing our officers then, members and friends, let us attempt to select those who will not disappoint us but will carry on this department to a complete realization of its splendid purpose.

HIGH SCHOOL MUSEUMS AND WHAT CAN BE DONE WITH THEM.

H. C. FISH, BISMARCK.

For four years before good fortune led me into my favorite study of local history I felt the ups and downs of this educational family. I am with old friends today. In the discussion of this important topic in school matters it will be my endeavor to present it from a schoolman's standpoint and I shall seek to reach some conclusions that will be within the time and scope of any teacher.

What is a museum? This is the question for each one of us to settle before we start to build one in our individual school. We have a hazy idea of a museum. We think of it as having a little of every thing and not much of any thing. A place for the citizens of the community to come and look over and go away with the head full of a conglomerate number of objects. Many of our museums of the past have been mere junk shops. But thanks to a better understanding of this subject and the true worth of this educational feature they are selling the old junk and settling down to a specialization of objects. Specialization is the keynote of my talk today. This is the key to success along all lines of work and it is the very life of the museum.

There is a difference between a state museum and the local institution. In the state museum we have a broad territory to cover, nearly 72,000 square miles. That covers a wide range of objects and a multitude of different phases of animal, vegetable, mineral and historical life. The Historical Society must draw the line also and endeavor to gather together everything that pertains to the ancient or modern history of North Dakota. And when room can be had articles from other states for comparative study. So our speciality is the historical.

Now about your local museum. Your first question is, "What is the most important phase of life in this community?" Are they interested in the Mandan Indians? Oh, no, never heard of them. The relics of the Mandans are not for me at present. Neither is the broad, flat country of the Red River the place for the geological museum. That would be nice but the people of that locality are not interested in those things. If we taught at Stanton, the county seat of Mercer county, we could have a first class Hadatsi Indian collection and if it was Cavalier county and we wanted to reach some of the Icelandic boys and girls and get the parents interested in the school system we could have a well equipped museum of old Icelandic relics. In one place we will find the botanical or the geological or the archaeological, but whatever we do we must specialize and go after the one idea so enthusiastically that the school will be known and recognized for carrying along the one phase of work in its museum. Make the display of so much worth that some one else will wish they had one like it.

The best example we have of a museum that has succeeded through specialization is the Logan Museum at Beloit College. A number of years ago the museum at Beloit College in Wisconsin was a junk shop of odds and ends, without system and without the touch of a trained curator. A curator of experience got hold of the museum and by the authority of the college he had full sway. He found many things of value in themselves alone, but nothing that would attract men of the one idea in life. So he got rid of practically everything, and only kept a few stone hammers and a number of stone implements, and said, "here is the nucleus for the museum." His call was long and loud and it reached men of Wisconsin who were interested in stone implements. It was the call of years but today the museum stands out as the best of its kind in the west. What if Curator Collie took in everything? Today he would be plodding along the dry ruts of an unsystematic mass of nothing worth the price.

Here in North Dakota we must bow to the agricultural interests and say, you are our bread and butter, our clothes, our education and our all. We will help the good work along and in so doing interest the people who work to provide these things. Museums of grains, grasses, corn will appeal to the people and also they become a factor in correlating with many of our subjects in our curriculum. We can show the stock, roots, branches in all stages of development. Then take all you can get along this line for comparative study. And by a good system of labels the observer may know at a glance the kind and the condition of the grains. Just so in museums of clover and other fodders.

The success or failure of a museum depends much upon the curator. He must be enthusiastic, open minded, intelligent. One who can say yes when he knows and be ready to say no when he is ignorant of the subject matter and an opportunity presents itself where he can learn. In this state as in all states the brunt of the trouble and worry and the joys and satisfaction must fall upon the science teachers. Among the good letters I received along this line was one from A. B. Stout, formerly Superintendent of Schools at Baraboo, Wis., and now botany instructor at the University of Wisconsin. Mr. Stout is a first class field man, a good thinker and his being is pumped full of enthusiasm all the time. He writes, "As to your museum idea I think it is a good one. Museums in high schools, as far as I have observed, are about like all work in the school—has its ups and downs. I know of several good starts that have been neglected by the following principal. I can see no reason why in larger schools the school system should not embark on a definite policy in regard to museum equipment, etc. At Baraboo we received as a gift a large collection of birds, worth several thousand dollars. I added to this a collection of rocks and minerals of the county and state. Also we had typical seeds, fruit, fibers. The emphasis was to correlate with and supplement to the work of geography, agriculture and botany. It seems to me for the present that the high school principal and the boards could be induced to take up the more practical phase of the work. Still I think the success of the affair will ever rest on the teachers of science in the

respective schools." Other letters tend the same way and they all seem to think that the shoulders of the principals and teachers of science are strong and broad and that the responsibility must rest upon them.

If the curator of this high school museum is a person of executive ability then for assistants he has a wide field to draw from. There is not a school but what has its big boy that is head over heels in love with nature study and by proper guidance they can make the collection. Of course, discrimination is the greater part of valor in the life of the head curator of the museum. Very often this kind of work given to the slow plodding boy will be his salvation. It is often the material thing which will quicken the boy's mind and the handling of these things places a responsibility and an alertness upon him that he can not shake off.

Of what use is this museum? Why are we educating the boy and the girl? We all know that it is not to get a smattering of history, science, language, literature and mathematics. These they must know and they are essential, but they are a means to an end. And the end is good citizenship. They are supposed to return to the state the cost, plus a high rate of interest, for what the state has paid out for them in their education. More boys and more girls must be gotten into our high schools. The library those of learning may use, but the museum the learned and the uneducated may gain benefit. In this state are a great many people from other countries who may have a good education in their mother tongue, but who may find it difficult to understand our own language. The museum will interest them. They will see what you are doing and call it good and will be anxious to send their children to a place where they are doing so many practical things. We must appeal to their sense of sight. Suppose we should go to New Salem, a fine dairy country, and there start a museum of grasses and clovers and alfalfa. And make this a specialized museum for the dairy interests, showing in full the differences between the good and the bad by specimens? Getting specimens from other places for comparative study, showing the root development, the stock development and the tough and tender fiber development. And by a good system of inexpensive cases put before them these things. What a reputation the school could build up. The school would grow. Our efficient dairy commissioner would visit the school and look over the collection. Maybe at that time he wouldn't say very much, but at some farmers' meeting he would mention the fact of the good collection up at the New Salem high school.

Our specialty has always been along the line of an historical museum, and there are many opportunities to build up a museum of this kind. You have a school up in Cavalier or Pembina county among those sturdy Icelandic people. It is an easy matter to build up an Icelandic collection of very much worth. This would interest the parents, the pupils and visitors. And when it became noised abroad that you were specializing along this line friends would see to it that things were thrust upon you and would have to refuse rather than to beg.

A week ago this last Saturday one of the district school teachers with her whole school came into the state museum. I explained the Icelandic and

the Indian relics and told them about the use of the specimens and how they were made. These boys and girls had been studying the Icelanders and also the Indians and so in this instance the correlation was perfect. The correlation idea should be uppermost in our minds at all times.

In closing let us sum up our points: The museum to succeed must have a specialization of objects, a competent curator, and this museum can be used for correlation with studies and for instruction to the community at large, and for bringing out the latent energy in many of the slow-plodding students.

HISTORY—HOW TO MAKE IT INTERESTING TO THOSE WHO
DO NOT LIKE IT.

MISS L. HEDWIG BRUHN, ENDERLIN.

History is one science in which each of us plays a part, no matter how humble. We enjoy the fruits of the good of past history, and groan under the burdens of its evils. Whether we are conscious of the fact or not, we see history—and some of it is momentous—in the making every day. Good judgment is requisite to gauge the perspective at such close range, and often a longer period of time must elapse before we are aware of the true values. Moreover our own thoughts and sentiments, though they seem to be lost in the swirl of the multitude, are a factor in the determination of forces effective long after we have ceased to be.

Anyone who himself realizes these facts and can impress their importance upon others cannot fail to make the study of history, as such, interesting.

There has been in the last few years a decided change in the attitude toward history. Meyer's General History—of fond memory—beginning, "History is usually divided into three periods, Ancient, Medieval and Modern"—is a good type of the simply descriptive historical treatment. This is valuable in its way, but after all, does not show the bearing of the institutions of the past upon the present. Such a utilitarian spirit is indeed approximated in the statement near the close of the introductory chapter, "In these customs, beliefs and practices of the early Aryans we discover the germs of many of the institutions of the Hindoos and Persians, of the classical Greeks and Romans and of other people who either sprang from Aryan stock or received from some Aryan people their language and their culture." History, as studied and taught today, has been transmitted by the fires of scientific research, and scientific methods have been so well applied that history is classed as a science whose laws are being discovered and may be seen in operation. As West's admirable text declares in words something to this effect, "We study history in order to understand by the light of it *our own* institutions." And that I would take as the *keynote* of all instruction in history—the thorough study of events of the past by which the present may be interpreted, and the problems of the present solved. For of what value are eyes if we be not trained to see with understanding? How much will not life be enhanced if in its small events and changes we are able to see the workings of a larger law and the ultimate triumph of right and justice. All life is made up of the small things, and the study of history should stamp their relative value upon them—if the study be properly pursued. This may be called the *spirit* of teaching history—for it is the spirit that "giveth life."

As the prime requisite then of making history interesting to those who *think* they do not like it (you see I do not grant that rational beings who are taught in the right spirit will really dislike it) the prime requisite is to connect the past with the present. Point out, in the course of each

lesson, such phases of the life and movements as may be paralleled today. As this paper is written one such comes forcibly to mind. In ancient Egypt, when the laborers were dissatisfied with their wage they went on a strike. And yet we are sometimes inclined to consider the problems of labor and capital as peculiar to our own day. Show also the interrelation of events in one country, and the influence exerted upon others. Striking illustrations may be brought of similarity of development under like conditions, which is one of the fundamental laws of anthropology, and therefore of sociology and history.

On the material side of teaching history there are various devices of value. Illustration of points abstract, difficult, or obscure, by the teacher is the objectifying necessary to many minds, especially of young people. And if the teacher, knowing the peculiar bent or hobby of those whom he is trying to interest, will but use those in his illustrations, interest will often be awakened by a consequent widening of the horizon, a personal equation not before reckoned with. For each one has some special interest, even as Caesar being told he could not be influenced by flatterers, thought he could not and was thus most flattered.

Another device is the working outline of the important points of the day's lesson which may or may not be kept in a permanent notebook. This is particularly individualistic and of greatest value is so far as it expresses for each student his own needs. The teacher should suggest and guide as to method tabulation, bringing out the important points, proper headings, subdivisions, etc.

In a lesson which is complicated an outline can best be made on the board during class suggesting new relations and making a view of the whole, as a whole, possible, which may supercede the working outline if the student chooses. Great likelihood as to length and detail seems advisable in making of outlines as each one must judge the best statement of the points to be remembered. Only let the outlines be suggestive and thus of greatest aid to the memory. The time honored division of cause, events, result and importance is a good one to apply even to longer periods as a sort of summary.

With all due respect to teachers of geography it has been my observation that comparatively few students realize the importance of this subject, which should be as fascinating as it is important. The non-interested student may belong to those who would point out South America for Africa or locate the Tiber in Asia. Maps, therefore, and plenty of them, should be used in connection with history study. The mind can grasp statements made much more readily if it can in imagination see the locations where their events took place. So great are the influences upon any people of the geographical environment, that too great stress can hardly be laid upon these features. Witness the geography of Greece and its meaning. An hour spent with the map before a new country is taken up, drawing out the facts from the observation of the pupils themselves, and leading them to correct conclusions, will impress such facts and characteristics upon their minds as nothing else could. For it will be virtually a discovery made by each one for himself, and therefore his own. The drawing of

maps in notebook and on the board will add interest—it being an accepted psychological fact that what the hand does is development of brain power as well. Money could not be better spent than in buying copious and permanent maps for each class room.

Where a library of any size is available valuable aid may be gained by judicious reference work, collateral reading and special reports on topics of particular story interest. This is the more necessary with texts using the scientific method of treatment where less attention is paid to description of battles and detail of events than in the older descriptive method. Yet such detail will invariably create for the student the atmosphere of the period and is therefore desirable. Many works supplying this want have been written. The topic which a student has been assigned for special report tends to waken an interest in him along that line—indeed it may chance that some such subject will arouse his hitherto dormant activities, and at the same time stimulate his interest in the subject as a whole. Moreover, a well chosen bit of detail may serve to characterize a whole period or movement and so fix it indelibly upon the mind. As an occasional treat the teacher might give a talk to the class on a period or a phase of some question not fully covered by the text, or on literature or art, showing how these are the product of their own time and peculiar in this, that, though particularly of that time, they voice an appeal which is universal and make them live. A talk on art with pictures to illustrate would be a happy choice.

If the pupils are at all wide awake and interested in other subjects, good results may be obtained by occasionally opening the subject to the class for free discussion. Perhaps this presupposes interest in the subject in hand—history—but I will venture to say that, led on by the enthusiastic ones, or a direct question from the teacher, those who thought they were uninterested will sometimes astonish even themselves. It might also not be a bad thing for the teacher to hear the opinions of the students, besides giving him further insight into their characters and minds.

Finally, I should like to touch upon the preparation of the teacher for his subject. Not that your preparation in history itself has not been ample, perhaps exhaustive in courses pursued and material worked over. But it is in the value of the study of Anthropology and Sociology as illuminating for history that I would lay emphasis. These subjects trace man from primitive states of savagery to his achievements of highest enlightenment and throw the white rays of truth upon many an historical movement. History is now less a study of great men as individuals, and as such, leaders of movements, than a study of peoples (society) and their production of a man who voices their ideas and purposes and thus becomes the guiding spirit in a crisis. There is more recognition of cause and effect, through the evolutionary development of large bodies than of belief in uncertain, erratic following of leaders by a rabble. The race and race characteristics as revealed in kindred subjects of anthropology and ethnology not infrequently throw a flood of light upon movements before considered preposterous and almost unexplainable.

As Dr. A. E. Jenks, Professor of Anthropology at the University of Minnesota, admirably says, "History has been written largely in terms of policies, parties and single strong men; it must be written with an always increasing use of terms for *peoples*, the *forces* of peoples (society), and the *laws* in accordance with which peoples (society) act, because democracies are becoming the style and superceding the one-man governments."

This may be illustrated in all periods of the world's history. The unity of Greece might have been established at various times and saved finally if her peoples (society) had buried their jealousies and differences. In the Middle Ages, a whole continent of many different nations, inflamed with the zeal for religious and also more material things, gave to history the Crusades, which, when conditions changed which gave them birth, gradually died out of themselves. They were a movement not only of Kings, Emperors and Popes, not only at particular times, but of the people (society)—including children, most of the time, as the growth of the spirit of national unity in the various nation-states that finally decided the long and humiliating Investiture strife.

Our own day is remarkable for the great moral reform wave which is in flood in the United States especially, and finds expression in temperance legislation, graft exposure, fights against machines and political demagogery of all kinds. This "is no man's or parties' policy; it is strictly sociological." (But whether this sociological development will ever carry us to the millenium of the Bellamy's "Looking Backward" is a question. The only link that I see so far is the attempted revival of the apprentice system in England, and the recognition of Atavism in Chicago courts only recently.)

This can give only a slight idea of the value of the social sciences to the teacher of history, but the broadening of the sympathies, the widening of the horizon, the adjustment in the mind of the relations of society to historical movements and the humanizing of abstract tendencies through a better comprehension of the minds behind them—all these must of necessity reflect through the teacher to the advantage of the pupil.

History approached in the spirit of conscientious endeavor to understand the present by the past will build in our future citizens the foundations for a grander future.

HOW THE TEACHING OF HISTORY, CIVICS AND SOCIAL SCIENCE MAY BE MADE MORE EFFICIENT IN THE RURAL SCHOOLS.

LILLIAN G. HALL, MINOT.

Many and varied have been the ideas as to the aim of education. It has been discussed by the leading educators of the country and modified or changed according to their varied ideas. The present age has arrived at the simplest conclusion, and true aim of education.

The present age requires education to provide something more than simply to acquire a certain amount of information. What education at the present time should do, and is trying to do, is to make more efficient citizens.

The polite information idea is a thing of the past. Education is now on a more practical basis. It is trying to give the child an insight into the social life of which he is a part.

Education for better social efficiency has brought about a great many changes and must still bring a great many more. It involves a broad field of thought.

In this undertaking history work must be made a very important part. Although it contains more material than any other subject, it seems to be the last to be adapted to this important aim of education.

There is often a hatred of the subject, which comes no doubt through the dry manner in which it is presented. Under proper teaching the boys and girls take an intense interest in the subject. There is no other subject, which contains the material to create interest that this one does.

History contains useful information. True it is taken from times past, but is it not vitally important to the present? Now that does not mean information for the sake of information. No benefit can be derived from such instruction. The child may be able to remember a jumble of isolated facts, but it certainly does not cultivate thinking, nor does it render him able to judge, when momentous questions in his own life are to be decided.

In real life nothing stands alone and isolated. What benefit does the child derive whose education has made of him a walking encyclopedia? It seems that it cannot be impressed too strongly that there must be a practical application to every lesson.

It is said we can only do by doing. Thus the child can reap the fruits of thought only by thinking. If a practical application of events of the past were made to present affairs, then history will have fulfilled its true mission.

Is it worth while to spend all the time devoted to history, on these things of the dead past, simply to know about them? Why not treat the subject in such a way that these apparently dead facts may rise up as living principles by which the present and future of our government may be determined?

There are three distinct phases of the question, although closely related to each other, require careful consideration separately. There is

the training of the child with relation to national affairs, his training for community citizenship, and his personal relation to people about him.

If history has not been accomplishing its true mission, the next question may arise; how is the change to be brought about and who is to be responsible for it?

Most text books at the present time give events following each other according to the date of their occurrence. Sometimes it develops a knowledge of the cause and result of things, but more often it develops a knowledge that these events did happen.

As a great many teachers follow the text, it is a natural outcome that the teaching of history in general will be on this basis. Custom has set in a marked degree this mode of teaching. In the rural schools, it seems to take less preparation on the part of the teacher. The time for each class must be limited and it is often a question, how to make the best use of this time.

I would suggest that we depart from the text and make history practical. To do this, let us emphasize those episodes and conditions which throw light on the present and probable future state of our government. As an example let us consider the panics which occur every ten or twenty years. Instead of mentioning each one separately as we come to them in the history course, let us make a study of the subject. Find out something of the cause, effects on the country and results. There might then be a discussion on how they could be averted or controlled.

Such questions as these, when settled satisfactorily in the mind of the boy or girl, will some day prove to be a great boon to the life of the nation.

This is only one of many examples which might be given. Let the short period of time the teacher devotes to her class be used in discussions and thought producing questions. We want boys and girls who can think, and thus it is necessary to train them in this direction.

Still the question arises, who shall be the instigator of this change. There are several ways, but perhaps the quickest one would be for the one having highest authority to insist on it. The question could then be brought up before teachers' meetings and plans made and discussed for carrying it out. The inspiration of these meetings would do much to agitate the subject.

The plan of making history practical may also be extended in a similar manner to other subjects. Let history be correlated with geography and literature, as history, civics furnishes material for the first two phases of the training of the child, it also furnishes material for the last.

The child should get ideas of social equality and an understanding of his rights. He should know when his rights are infringed upon, and how to act in such cases. His success in life will depend greatly on his dealings with other men.

The discipline of the school adds to the training received. It should be arranged in such a way that the child must settle a great many questions relating to his own actions and his relation to other students.

As it would require an extensive discussion to go into the details of a plan of action, we can say simply to make the study of history civics practical.

HOW THE TEACHING OF HISTORY, CIVICS AND SOCIAL SCIENCE CAN BE MADE MORE EFFICIENT IN THE GRADES.

MISS PHOEBE L. MINSART, MINOT.

Before attempting to accomplish an end we must have a definite idea what the end we are seeking is. If history in the grades is going to mean acquiring enough facts to enable the pupils to pass a final examination, teaching becomes a very simple matter, and memory is the most important factor to be considered. Let us open the pages of a child's life and read what should be written there, as a result of having studied history. Desultory events, memorized and retained long enough to enable him to pass the examination have all disappeared, dates 1492 and 1620 are written there, but, as one speaker expressed it, we find some wondering what happened then. First, it should have practical utility. To understand the significance of the social life of the present we must know history—the stream of events which has culminated in our present institutions. Our nomenclature and general notions of law and civil government are products of past ages. Our political and social institutions and our industrial life all grew out of ideas slowly developed in the past, hence the necessity of knowing the past to clearly understand the present. Mere facts of events are only steps to the higher grade of history, in which these facts are classified with regard to causes and deep-seated relations. History also supplies knowledge for social sciences as civics, economics, military sciences, etc. It must be made the gateway to other branches of culture. It is disciplinary if made to appeal to the imagination. Great scenes must be pictured in order to get a clear idea of any particular event. And last, but by no means the least, we come to the ethical side of history. Every great epoch in history reveals men and nations with qualities that appeal to the sentiment of the child. The qualities of courage and unselfish devotion to country of a Washington or Nelson still his feelings and stand in history as ideals by which his taste and character are formed. No child can study the work of a Lincoln without being inspired to a finer sense of duty and courage.

Then a careful study of the history of his country will develop in a child the sentiment of love for his country. It should mean a patriotism which springs from a realization of what our institutions have cost, and which has for its ideals justice for all. If a child can be made to realize clearly the origin and cost of our present institutions, if he knows all the factors which have helped to give him the privileges and liberties he enjoys, he should feel the sense of the responsibility and duty towards the government and institutions which give him these. He should be taught not to lead a purely selfish life, but rather to feel that he is one of the great body upon whose intelligence the welfare of our institutions depends.

Now let us go back and see how all this can best be accomplished in the graded schools. History is dynamic. It means actions or events progressing through time forming a continuous stream. What happens at any one time in human history is the result of all forces past and present constituting the stream of history. Epochs are marked by great movements which have no exact beginning or ending. Certain laws govern social phenomena, but knowledge or history experience must be reconstructed at every step and here lies the difficulty. The child in order to study the history of his country must start with the experience of human and social life as then known. He must start with observing facts about him—the school board, the town board, the policemen and the city council. The workings of these constitute his first bit of political knowledge. Gradually his knowledge of society, government and institutions is enriched and then a wider experience he becomes more able to interpret the printed records of history.

Ideas of government may further be obtained from the social life of the school. On the school grounds there is a real government; it may be in the hands of a few large boys, who enforce justice among other boys or abuse their power by ruling harshly, or it may sometimes be left in the care of a majority of pupils. This knowledge helps him to interpret situations as recorded in history. The interpretation of events is the most difficult phase of history teaching, because that which is recorded is the least important part of an event. The real events are in the thought and feelings of the people and the external events are imperfect symbols of these. A living institution, as a school, has its real existence in the minds of a group of persons and what we see are the symbols of their ideas. Our government, as we understand it, can be forcefully illustrated in every day school life in the grades where pupils are nearly of an age. Take, for instance, the majority principle so often referred to in Lincoln's inaugural address. No child will dispute the fact that unless a minority gives in to the majority, the majority must acquiesce, and we have a government by the few, or government must cease.

It will seem strange to them that the South should not have acquiesced to the majority. In other words they have not entered into the feelings of the minority. But suppose a question is left to the school, such as, shall we have a written or an oral review Friday. Let the pupils vote on it. The majority carries the day but the minority is not so ready to acquiesce; some will protest strenuously, just as the minority did before the Civil War. A grade of active pupils contains all kinds of citizens. To illustrate this, children, especially in the upper grades, should be permitted to vote on questions which directly concern them, but which are not of such great importance to the teacher. A forceful lesson in good citizenship can thus be imparted. Here we find the don't-care-child, who corresponds to the don't-care-voter, who expressed his views when he said, "The less I know of politics and religion the better off I am. We elected a man to represent us in Congress, what more should we do?" Here again we are confronted with the child who votes a certain way for a selfish purpose. He votes for a written review because he is proud and

hates to let others hear his mistakes; or he votes for an oral review, not because it is the best review for the class, but because he is too lazy to write.

Present events should be a source of interest to upper grade children. *Week's Current*, a little weekly newspaper, is well adapted to the grades. The most indifferent can be made to take interest in current events. If we can so interest our pupils with affairs in Washington, so that after he leaves school he will retain this interest and be a citizen worthy of the name—one who will know what the senators and representatives are who represent him, and the most important of all—*how* they represent him, a real purpose of history study will have been attained. In the power of the grade teacher lies the possibilities of making future good citizens of the United States. We have the children at an age when habits formed are never to be broken. It is through these children that our country must hope to fully realize that this is a government of the people, by the people, for the people. They must prevent the supplanting of statesmanship by politics. If we confine the work in the grades to United States history the stories should be biographical, moreover they should exhibit the lives of great men, as La Salle, Penn, Clark, Lincoln, etc. In the seventh and eighth grades the work is a logical tracing of the history of the colonies founded in the new world, the Union and its great events. Is one text sufficient to teach all this in the upper grades?

Any good text and a good outline gives enough facts for any eighth grade pupil. If only a limited number of reference books are used the indolent child has a good excuse for not getting his lesson, and it is impractical to give each child a copy of all reference books. However, if a reading table with good books on biography and history can be provided, it will add spice to history. The pupils who show the least inclination to read should be assigned special topics and soon they will catch the spirit. The result is life and interest which can be maintained without much effort.

The reading class and the history class can be so related as to arouse greater interest in both. When studying the revolution we cannot stop to make a thorough study of the Declaration of Independence. The reading class should study this simultaneously. This will fix the cause of the Revolution forever. In like manner Lincoln's first inaugural address should be read. If studied at the right time it will prove as interesting to the class as a fairy story.

Reviews are often conducted in such a way that pupils fail to gain anything. If thought questions are propounded even the brightest child will feel that he has something to learn. Any child can learn the facts given concerning the invention of the steamboat or the Purchase of Louisiana, but to show that the invention of the steamboat was a direct result of the Louisiana Purchase is a harder problem. A more perfect union of the country was the most important result of the war of 1812. Histories do not say so in so many words, but we conclude it was so from facts given. These are the questions to be reviewed. No one can understand the causes of the Spanish-American War until he knows what was

in the minds of those who declared it, namely, to reunite the North and South by giving them a chance to fight side by side for the same cause.

The teaching of history for efficiency then, depends not on the dates and facts we impart, but more on the power we give to the child to be able to enter into the sentiments of the people existing at the time events took place. We must then conclude that history is a subject which cannot be taught in any grade by forcing so many facts on the minds of the pupils. The ethical and culture value of studying great epochs in history come from a keen perception of the moral principles involved, and this must be gained through the emotions. Pupils must feel the spirit of the time and be interested in order that an event may have moral significance. Sufficient details to make the subject interesting. Facts should not be too general, and it is better to confine the pupil's work to a portion of the history and have the pupils interested than to cover all at the expense of enthusiasm. The successful teacher of history, then, is the one who has created, through the *medium* of history, a lasting interest in our government, in other words, who has developed in him an enthusiasm that will grow into future good citizenship.

HISTORY AND CIVICS IN THE HIGH SCHOOL.

SUPT. W. A. GODWARD, DEVILS LAKE.

In order to suggest any way to make the teaching of history and civics more effective in the high school it will be well for us to begin with a definite understanding of the aims of these subjects in the course and of what should reasonably be expected in the way of results from them.

With the present day view of the claims of any subject matter to a place in the curriculum considerable of fog has disappeared. No subject holds a place now in our courses of study on the mere claim of being disciplinary. Every subject and every part of a subject must prove its claims to definite preparation for living before we will admit it to our curriculum. The preparation may be in supplying desired knowledge, skill, or power, but it must be definite preparation for definite ends.

From this viewpoint it may be less difficult to see the function of history and civics in the high school course and with the clear conception of the function it may not be difficult to make these subjects more effective in preparation for living.

What is the exact aim of history? (We prefer to take these topics separately.) There are evidently many events of the past which can throw light upon the matter of living. For thousands of years the race has been stumbling and groping and experimenting and now and then learning something definite about the right way to live. It is possible in fact to reduce some of these things into principles which are practically universal in their application. These principles may be systematized into a reasonably definite and practical science of living. Evidently the knowledge which history should aim at is the knowledge of these principles and of this science of living. This would make history one of the broadest of the subjects in our curriculum and it is.

It is evident that these principles can not be well taught as mere abstractions. Certain well selected concrete actually true facts must be employed to lead to the comprehension of the principle. Not all the material which reveals the principle need be employed any more than all the experiments which can be made to demonstrate a principle of natural science need be performed. In fact the unskilful use of facts and the endless consideration of detail is the greatest obstacle to the correct teaching of history. No event is worth knowing unless it leads to a principle or to a desirable emotional state. The very multiplicity of detail is the greatest difficulty in history. Historical works should be greatly simplified and arranged to bring out the meaning of events especially with reference to equipping the man and woman with that knowledge of the social experience of the past which will best help them to meet the problems of today.

For instance, what need is there to go into the minute details of the whole question of slavery either in the United States or elsewhere. I mean personal slavery. That problem is solved. The problem of today is not

personal slavery. What need to go into all the intricacies of man's efforts for political liberty. Political liberty is not the problem of today and the pupil knows it. The problem paramount of today is industrial liberty. There are principles and data in the struggle for personal and political liberty that may well be studied for their value in throwing light upon the present problem, but there is much more that is of no value even if the pupil had time and inclination to wade through it. The proper perspective will enable the teacher to select the live principles and facts from the unessential and his ability to do so will in large measure determine the interest of his class and the efficiency of his teaching.

May we say then, that the first essential in making history efficient in the high school is a clear conception on the part of the one who outlines the course and the one who does the instructing of the exact aims to be secured? That the second essential is the skillful selection of the material which will best develop the desired knowledge or feeling and the careful rejection of the less desirable material.

If this is well taken it may be well for us to go a step farther and suggest the main classes of principles which will form this science of history. At the very beginning of human experience the broad general principles of morality began to be discovered. History is rich in events which taught men the broad ethical principles of right and wrong action toward their neighbors. There are events which might well be taught to the first grade in the primary school, illustrating the principle of truthfulness, courage, generosity, honesty, purity, respect for age, respect for parents, respect for the laws of the state, respect for God, and these principles have not been outgrown. They are universal in time and place. They should be taught forcefully even in the high school and taught by wise selection of appropriate material. Personally I believe there is as much need today for the reinforcing of these general moral principles as there is for a more minute knowledge of our social relations and responsibilities, and of these I wish to speak next.

Next to the general principles of morality, I believe that stress should be laid on the responsibilities of the individual to society. At the very bottom of social responsibility is industrial responsibility. History is rich in the experiences of nations and individuals in their as yet incomplete search for the desirable industrial relations, and a wise selection of man's experience in this direction will throw light upon the unsolved problem.

Every citizen must take part directly or indirectly when he comes to years of discretion in the government of his locality, his state and his nation. While political liberty has been won, it has not been perfected. These facts and principles of government which are of assistance to the citizen in perfecting our form of government, restraining license, distributing justly the burden of government, securing our ideal of equality in the administration of justice, may well enter into a live course in history.

Probably a study of man's attempts to make his country healthful and sanitary will, under our idea of the function of history, be of greater importance than long histories of wars and the causes of wars, and not detract either from the interest or the efficiency of history.

In America the institutions of school and church are wisely separated, yet a few facts and principles concerning development of individual liberty in matters of worship rightly belong to the fitting of the citizens to live in religious harmony and fellowship.

It is of course beyond the scope of this paper to more than indicate the more important principles and facts which will serve the end of fitting the pupil to be an efficient member of society. With this brief survey of the aims and materials of history we wish to turn to the methods.

It is our belief that history may be made more interesting and more effective in our high schools by the elimination not only of microscopic details of really unimportant events, but by the elimination of microscopic methods. A half year course or even a whole year course is not sufficient for the intricate analysis of the whole subject. There may here and there be facts of such importance that minute examination will be warranted. The wise teacher will recognize these when he comes to them, but will not apply the too critical method to the whole subject with the same rigor.

Wisely selected reference libraries will add largely to the effectiveness of high school history, but a few good references well used will be better than a slipshod method of examination of many records. The skill of a teacher in using references will be an important factor in the efficiency of the course.

The general aims of civics are the same as of history, but it is limited to the narrower field of preparing the citizen to perform his part in the body politic. The same principles which determine the material and method of history are equally applicable to civics. One phase of instruction in civics, however, we wish to emphasize particularly. In our estimation teachers are putting too much time on the mere machinery of government and not sufficient on the principles of government, the duties of the individual to the state, and the duties of the state. More emphasis on the latter and less on the former would greatly improve the efficiency of civics.

We shall close our few suggestions concerning history and civics with the statement of our belief that if history and civics do not make the citizen more truthful, more honest, more courageous, more regardful of his obligations to his fellow man and the state, more industrious and industrially capable, more refined in taste and manners, as well as more intellectual, these subjects are falling short of their possibilities.

HOW CAN WE MAKE THE TEACHING OF HISTORY, CIVICS AND THE SOCIAL SCIENCES MORE EFFICIENT IN THE TEACHERS' TRAINING SCHOOL.

PROF. R. M. BLACK, WAHPETON.

The great principles of pedagogy underlie all departments of instruction, and the greatest element is the teacher and his personality, the living, vital touch of the one who leads; the real "dux" who "leads out," the master mechanic who "instructs."

Probably the first way to make the teaching of the social sciences more efficient is for us to do better teaching. If this is true of teachers of special subjects by profession, there is an added responsibility when we have those in our classes who are themselves preparing to be teachers.

The aims and purposes of the teachers' training schools must be different from those of other schools. The question of methods is a more vital one. The history and civics of the rural schools are information courses and to the great majority of the pupils will be all the instruction they ever receive before entering the graduate school of life and its laboratory of experience. The public and high schools must also give information courses to the great majority of their pupils. The training of teachers is a secondary consideration in their plans. If some teachers come from the ranks of these schools they are quite liable to follow the methods of some teacher who embodied their ideal of an instructor. The primary object of the college course is cultural and informational rather than pedagogical. The pedagogy of these subjects naturally finds itself most at home in the teachers' training school, and the teacher of teachers has a double responsibility. He is teaching his own pupils and through them the many times more numerous classes that they in turn shall teach.

An acquaintance with the present teaching of history and the related sciences would convince us that training in methods and devices deserves more attention. In too many cases, especially in the rural schools, history is still treated as a subject for training the memory and civics as a matter of theory. Usually a single text-book is all that is furnished, and frequently this text is one selected by people who never taught, but who prefer this book because of its cheapness, or its association, or because it has been boosted into popularity by an enthusiastic agent. Even under these conditions the teacher is inclined to feel favored of fortune if each pupil is supplied with a text-book of his own. Each day's work is assigned, recited and passed with little or no thought of its relation to other parts of the subject. We do find some teachers of history and of civil government in the public schools who are vitalizing the subjects and are obtaining splendid results. We could hardly expect trained specialists in all or even in a large number of our numerous unspecialized rural schools. The graded and high schools are fortunate if they secure teachers of history with special training for the subject. Probably the short comings of these schools are brought out prominently enough in the

other papers of this series, but the fact that short-comings exist in schools taught by their pupils should be notice to the training schools that their responsibilities have not always been fully met.

Perhaps one reason that there have not been more trained teachers and better teaching of these subjects in the past is found in the popular belief that any one can teach history or civil government. The teacher of mathematics, of the languages, of the sciences, and even of English, must have some special training and fitness for the subjects undertaken, but inasmuch as a teacher is expected to be able to read, history or civil government could be taught by any teacher whose schedule could admit an additional class. Happily, in the new awakening to the value of history and the meaning of the social sciences this opinion no longer holds with the majority of school authorities. It is the duty of all who train teachers to make sure that this erroneous notion be "reformed altogether."

The needs of his pupils will show the training school teacher some of the factors of his own problem. He is not only to make his own teaching efficient, but his efficiency is to find expression in the teaching of his pupils. A part of his task is to make the future teacher an efficient one.

An appreciation of the true value of the study is necessary to bring about the proper relation of subject and pupil. Instead of considering history a purely memory exercise we are ranking it among the foremost of those studies which train the reasoning powers. Civil government not only prepares for citizenship but affords excellent training in ethics and the principles of justice and honesty. Sociology as an organized science trains to the study of man, according to Pope, "the noblest study of mankind."

As we teach best what we know best, a thorough knowledge of the subject is necessary. No amount of method, devices or appreciation can take the place of well digested and classified information. If the teacher is to come to the class prepared to pour out freely of his own riches he must keep his own treasure-house filled and replete with what he is going to give.

The very name of training school implies method as well as matter. The pupil at the training school should be given the benefit of the very best method of which the instructor has knowledge. I do not mean that the instructor should be content with teaching the subject by the best method he himself can use, and then leaving the pupil to copy his ideas and adaptations, but as the pupil is to become a teacher he should be directed to the fountain-heads to drink for himself at the sources of inspiration. Plans and devices should be considered, their merits discussed, and approval should be given to those which meet requirements. If devices are employed those which afford the maximum of real historical training with the minimum of mechanical labor should be used. In American history some such work as Mace's Method in History should receive consideration. No two people present a subject in exactly the same way, but every one has a right to the published thought of others who have successfully met and mastered the difficult tasks of the school room.

Acquaintance with the best methods and with the spirit of the living teacher makes easy the approach to real interpretation without which the teaching of history is little better than an idle task. A meaningless fact has no place in a body of knowledge. Facts in history are closely related. It is the ability to select and emphasize those facts which have close relation to the matter in hand that distinguishes the expert teacher. Books, and especially text-books, are primarily made to sell. They are storehouses of facts, and the unskilled teacher is frequently bewildered in his attempt to select the more vital elements, and knowing no better way, tries to teach every part as though it had equal claim with all the others. A broad, comprehensive view of the whole field is necessary that he may select the important parts. The training school should help him at this point by a wise treatment of the subject matter in the hands of the instructor. His judgment should be so trained that he can select what he believes essential and what he can best present.

A warning might not be out of place at this point. We must remember that history is a record of what happened, and we should train our pupils to withhold judgment, and until they have possession of fairly complete knowledge to refrain from too much generalizing. History deals with facts, not opinions. Civil government deals with relations, not with finespun theories. Sociology is a study of conditions, not a passing of judgment upon defectives and delinquents. Too many opinions and too much generalizing are the bane both of thorough study and of social progress.

Nearly or quite all the periods of history now have inexpensive source books, and what promises to be a very helpful book consisting of selected documents on civil government has just been issued. A study of the sources is the very best help to vitalize the subject and to train the historical judgment so indispensable to the teacher of history. Just what portion of the time can be devoted to the study of source material can be determined only by the instructor in charge. A manual of secondary material in the hands of the pupils, or at least within easy access of the class, seems necessary to the best work below that of collegiate rank. To have relation and vitality the subject must have unity and continuity.

Some problems in research in the nature of original investigation should be worked out by the pupil under the direction of the instructor that the future teacher may know something of the method and manner of first hand work in history. Material for this work is everywhere conveniently near. Local and state history furnishes an excellent field. A little training will enable the alert teacher to organize this material, and with it introduce his pupils to historical method and give them a training such as no amount of simple reading and recitation could accomplish. The pupil should be helped to realize that civil government is an every day affair rather than a puzzle kept at the state house and the county seat and shown to the public only on biennial election days. The laboratory of the social sciences lies all around him, even including himself as one of its units.

If time or circumstances forbid the employment of original work, and even library books are scarce, there is no good reason why the teacher

must use the single text. A few other text-books, even if they are no better than those in use by the class, will serve for comparative study. I have seen good work done where the teacher had a few different histories on her desk to loan to a pupil who wished to read further on the topics of his lesson. Many a pupil has learned to like history by this comparative study of different narratives.

A library may be at hand but may not be supplied with sources adapted to the needs of the class. A good library course based upon secondary material will give the subject vitality. Such a course is far superior to one based upon a single text. I have had good success with two review classes in United States history to which I have given lesson sheets in outline with references to four or five standard text-books, the Epoch series and the American history series. These books cost about nine dollars. The plan was an adaptation of Crissman's Library Method in American History. Such a method could be adapted to a rural school with very little expense and the interest in history would be quickened a hundred fold.

As an exponent of what may be done the training school should be well supplied with the proper equipment for historical study and investigation. Our plans must differ widely from those followed by the teachers of the biological and physical sciences, but a comparison of equipment provided for the teaching of science by our higher institutions with the few books and fewer maps, and limited space for historical work, can not fail to show us that our departments lag far behind in material furnishings if not in popularity. Perhaps these other sciences more strongly appeal to the popular purse and the generosity of our legislators. Our training schools should be models in equipment with books, maps, curios, pictures, rooms for recitation and research, and all the apparatus which would help to visualize and vitalize the subject.

To recapitulate: the training school can aid in making the teaching of the social sciences more efficient:

(1) By giving its pupils:

An appreciation of the true value of the subject.

A thorough knowledge of the facts of the study.

An acquaintance with good methods.

A comprehensive view of the whole field studied to enable him to note the vital points.

A withholding of judgment and opinions until the facts are in hand.

(2) By vitalizing the subject either by a judicious use of the sources (and local history, government and society may be considered sources), or by library courses or comparative reading of secondary material; and

(3) By serving as a model or standard in equipment and furnishings for the study of the social sciences.

The public school teacher training amid surroundings and in an atmosphere conducive to the growth of historical and social appreciation will be better prepared to supply from his own resources the help and inspiration needed by his pupils.

ON THE TEACHING OF HISTORY IN THE UNIVERSITY.

WALLACE N. STEARNS, STATE UNIVERSITY.

The careful division of our general subject at the hands of the committee warns us to beware that we are starting out with a common definition. The University represents the capstone of our nation's educational scheme, and its function is three-fold: General culture, technical training, and investigation. Our American University is a congress of colleges, each having in view technical training for some vocation, unless there be a possible exception in the College of Arts. The Teachers' colleges which now form part and parcel of our universities are included under a previous paper of our program. The difference between our teachers' colleges as outlined by our universities, and other normal schools, rests on a division of labor. The teachers' colleges are supposed to limit their efforts to the training of high-school instructors. It remains for us then to discuss the teaching of history as a cultural study in the College of Arts or as an investigative study as pursued in the graduate school. But our younger institutions have not reached the graduate school stage, hence the two fields, college and university functions are carried on together in some sort of half-and-half style in some sort of keep even pace. A further embarrassment in our American colleges and universities is the mixed character of the student body. So far from having a uniform graded system, we have even in our best universities a heterogeneous body of students representing every stage of intellectual development.

Accepting conditions as they are, what is the function of the university in the teaching of history. And what is that function in a young state where there is need of a wise conserving of energies? We have referred above to the work of the teachers' college, the province of which is to turn out the finished teacher for high-school grades, who shall combine wise method of instruction, power to inculcate proper historical method, and a saving knowledge of historical material. We must insist more and more on this last. Great is method and great is enthusiasm, but specific knowledge is absolutely essential, and method without definite knowledge is like a tonic repeated without recourse to solid food. In like manner we might speak of the duty of the university through the College of Arts to treat history as a cultural subject, disseminating such discipline as shall give to the future citizen and non-professional student of history a broad and sympathetic appreciation of history as shall delight the mind and provide sane precedent for conduct. We must also assume here similar equipment in such related themes as economics, political science and sociology, for to take up with one of these topics regardless of the others is like viewing the universe through a crack in the fence.

We must keep in mind, however, the chief characteristic of the university. The university is pre-eminently the institution that stands for higher education, and at least ought to stand at the pinnacle of our educational system. Whatever may be done through the teachers' college for high

school teachers and through the College of Arts in the interest of culture, we must insist on this third point in history teaching, namely, research and the cultivation of the spirit of investigation. The advanced teacher of history, if he is to have the proper impetus for his work, must know something more of his subject than what is dealt out to his classes; he must be something more than a replica of some text-book, however good that text may be. Every teacher should have burrowed down into the sources for the history of some country or period, and thereby have acquired a historic sense, an appreciation of history problems, and a sense of the difficulties of constructive historical work. Then history would cease to be merely analistic, there would be less of that blighting dead-sureness, and the true worth of history would appear in its proper form as the interpretation of the organic evolution of society. Instead of being merely records of the past we should have beacons lighting up the future.

To be specific, the history department of a university should be desperately alive. It should not be necessary for intelligent persons to ask where the university is located. University professors ought not to be content to be known because of their connection with this or that institution, but should strive to make the institution more widely helpful and more favorably known because of their own labors. Especially is this true in longer settled districts where the work of the pioneer has been done by a previous generation. This point is more clearly evident when we bear in mind that the worth of the graduate's diploma is as dependent on the worth of the institution granting it as the value of a nation's currency on the nation's credit.

We may further distinguish here on this point three separate subdivisions of the field: Professional study of history, training of professional teachers of history, and development—in the case at least of our state universities—of so-called local history by research, preserving of documents, and collecting of teaching materials. We may see here that the university department should be in vital touch with every history teacher in the state, or surrounding region; scholarships and fellowships could be established for no better purpose than to assist the teachers of the state to an occasional period of study in order that they may have opportunity to come into touch with recent advances in the historic field and may have opportunity to develop any line of private investigation they may have taken up. There would be increased enthusiasm, too, and the confidence born of the feeling that one is fully abreast of the times.

Not only should the university department of history serve as a depository of learning, but it should seek to enlarge the bounds of knowledge and should strive in every way in its power to render the teaching of history subjects easier and more effective. And history students should leave the university so far as possible possessed of a reasonable acquaintance with the field and its problems and the lines along which historic study is developing.

What has now been said will indicate the second step—the training of teachers. Besides general courses, seminary courses adapted to the developing student, will lead to correct methods of study, the weighing of

material with precision and care, and to proper method in the assembling and use of critical apparatus. The work done could represent the finished product of a scholar taken as a model or the work of students as a part of their training.

It remains in the few moments left to speak of what the University can do for local history. We will begin by quoting from one of the circulars of the University of North Dakota: "Organized for the purpose of fostering an interest in our own history and creating and strengthening state pride in our men and our institutions. Open to all students who desire practice in writing history and who wish to acquire skill in the use of original records and documents."

It is a pathetic spectacle to see institutions and commonwealths after years of neglect, putting forth strenuous yet futile endeavors to gather up the remains of documents whose value seems greater by reason of their irretrievable loss. Thus, many a university cannot present a complete file of its own catalogues. The state of Illinois is now compelled to go to Wisconsin for numerous files of her own newspapers, and only within the last five years have priceless records of the early history of that state been rescued from oblivion by the determination of one man, records whose contents are relegating more than one volume of hitherto authoritative history to the back shelves.

North Dakota is most opportunely situated. We have here every stage of society from the blanket Indian to modern city life. The records of the past have not yet been destroyed, and few historical organizations have the opportunity or are achieving the results here being attained. There is abundant material, ethnological and sociological as well as purely historical. The recent vindication of the Verendrye journal is a case in point, as is also the relocation of the old Indian towns along the Missouri. Another generation and the early settlers will be gone, the Indians scattered, and old landmarks and remains obliterated. The growing museum at Bismarck, the volumes of the State Historical Society, and the awakening interest in Dakota history all attest the effectiveness of the efforts put forth. It is for the University department of history, in co-operation with the State Historical Society, to devise and to propagate proper methods for the preservation and use of this material, while it is yet with us, and to bind together in common cause the history teachers of the state as the leaders in this great work.

We ask finally to what extent all these plans are possible. That all this can be called into being at once or by mere fiat, no one for a moment hopes or expects. But while we are building we must build for the future and patiently, even though crudely, we must work in the present with such means as lie to hand. But we must work constantly toward the goal, striving to do our work so that it will not need to be done over, and with such celerity as may be compatible with efficiency.

SUMMARY AND PLANS FOR CO-OPERATION IN HISTORY.

WILLIAM B. THOMAS, A. M., JAMESTOWN COLLEGE.

For the double reason of holding myself to the theme and of getting our attention well set on the field we are to cover, let me call your attention to the scope of this paper:

1. To outline matters brought out by foregoing papers and to call special attention to subjects that should receive discussion.
2. To suggest if possible certain places where co-operation on the part of all history teachers and others interested in historical matters in the state may reenforce the efforts of all.

Before entering into any formal discussion of subjects naturally included in this plan, I wish to state succinctly enough that they might form the brief of an argument the four or five questions we might discuss this afternoon with profit, as indicated by the papers to which we have listened, with possibly some points not so much expressed in the papers as suggested by things that were said.

1. Is the elementary school striking the right balance between the memorizing of dates, of names of officers and plans of campaigns, in a word between matter on which it is easy to give an examination and matter that is going to help to form the taste in reading and the civic attitude of the pupil when he has arrived at years of discretion? Or, to give the same question a look in another direction, is it possible that a thorough training in such things as I have just enumerated is the best preparation, after all, for civic life, that the school can give the pupil in the elementary grades.

2. In the high school, is the study of history to be treated as a science, a subject without any philosophy except that which comes from the soul of the teacher, and of this fact the student had best not be informed, or are we to treat history as an addendum to a book on ethics? To carry a tempting metaphor further, in teaching the youth the story of the past, shall we say the page of history is made up of annals intricate and entertaining, with ethical footnotes by the latest compiler, that history is ethics with historical proofs as footnotes, or shall we say history and ethics are as unrelated as Greek and calculus except as the reader may wish to dream of one while he pursues the other? And then, if we grasp the first horn of this trilemma, as the trend of the papers read and common practice would seem to warrant, in the average high school, how can the choice of a library question, the memorizing question, the sources question, the study of economics question, the personal bias of the teacher question, all be made to contribute toward the giving to historical study this forward look?

3. In the teachers' training school, that is to say, in the main, in the state normal school, given such conditions as these: Students ultimately to be teachers in the elementary school, a new state where students are more than usually anxious to be about their "real work" in life, as

they think; further, and arising somewhat from the causes I have just enumerated, students who do not aim so much as some to know history as contributing simply to culture—how can we best give the student the historical sense in comparatively short time, so that she can go out and make her own method and bring about those results suggested as desirable in another section of these questions?

4. In the college of liberal arts, how far and when shall the tendency to make of history major work be encouraged, to the possible exclusion of work which will assist the student later to become a more thorough-going scholar in history? On the other hand, how can we best overcome the notion found even in college that the student can master history after he gets through college, in the interval of waiting for lunch from a text borrowed from a circulating library? Other things he must study; this he need only read.

5. Taking as the definition of a university that suggested by Dr. Stearns, and postulating as he does, that such a university in America has been largely a prophetic idea until recent times and that in a new state such as ours the same must continue true for some time, how shall we who are helping to build up such institutions in the West present their value to the student public so that they shall care to avail themselves of opportunities at home, and to the non-student public, so that it shall encourage strong institutional growth, appreciate the unique necessity of gathering records and data for the future, further the dissemination of results secured among those entitled to them, and finally, make it materially possible for teachers,* especially, to obtain inspiration from means provided.

How, then, to teach the absolute essentials of the history group in the elementary school, to teach best the informational and directive in the secondary school, to equip teachers for a most difficult task in the training school, to teach for culture and further scholarly work in the college, and to push on the historical spirit in the university; in addition, how to enlist the public in the same work, this is a program broad enough to furnish discussion by all here, unsettled enough in the minds of many to make it worth while a thorough discussion, and valuable enough to the state that it could afford to pension us and keep us in its permanent employ if we could guarantee a final solution to a problem which has awaited its master from the days of Socrates until now. For I take it that what several here seem to have had in the foreground of thought has to do with the old question which troubled the Greek, namely, how to make education, which is "dominantly rational" and intellectual, and in itself colorless, so far as character is concerned, contribute toward the building up of that kind of character which all of us pronounce honest, patriotic, manly, in a word, good.

I have thus spent nearly half of the time allotted to me in setting before you certain questions and outlines. My apology for this is that in these questions and our answers to them lies the benefit we are to derive from this conference on history, and that I should be indeed happy to hear a thorough exchange of opinion on even some of these issues. Take

for example the old question as it may seem to some—a ghost already laid—as to how much of the teacher should come out in a history lesson, how much of truth should be told where truth is unfavorable to some hero in history, is there not in this material for an extended paper in a conference like this? Within the course of a few months I have known of an acquaintance in university circles going around his state with the message to teachers that the history class is the place to teach morals above all else, and within the same period other acquaintances working in the same field, have taught their hearers that the history class is the place to teach history, and that we must stop shaping the content of history teaching to suit some notion of our own, although it may be the noblest theory we possess. And I think we must agree that so far as fundamentals are concerned, this is a matter pretty near to the point made emphatic by Superintendent Godward, relative to the way in which history may be made to contribute something to the high school youth's principles and science of living. But this is a question concerning which I have no right to enter into discussion further than to show that I think it is a part of that on which a history teacher should have an opinion, and I will refrain even from giving concrete illustrations how it is mixed up with moral issues, political issues, all issues, for you know your own illustrations. When everything is said, we all agree that on the informational side, on the disciplinary side, as well as by the emotional state set up by the serious reading of any period of history, any secondary school youth is going to be greatly helped by the study of history with a thoughtful teacher, and for myself I would go farther and say in the spirit of Superintendent Godward's paper, that the teacher who comes to a class of high school students in history without the conception of the history group as studies which can help make good citizens and preserve the institutions of the nation, has found the wrong place for his talents.

Since it is apparent that I have suggested enough topics for discussion above to furnish a basis for a whole conference and it was just as apparent to me when preparing this paper that these are but a fraction of the things a history teacher should think about, I shall select somewhat arbitrarily the points I shall discuss farther. Here is the question of how history should be presented to pupils in the elementary school, and primarily in the grammar grades. In the old days of crowded school rooms, ungraded classes, few books and poor system, what a godsend was history, which might be read and read again as a reading book, and used as a study adopted to those who had got beyond the need of much help from the teacher, except perhaps to supply a word or two in a page when the pupil got up to recite. And the old days are not all passed. Well, history teachers should not think of the class as a place to do these things I have just mentioned. History teaching in the elementary grades should have the same aim, as far as permissible, as suggested by Superintendent Godward for high school instruction. Here again details crowd upon one. I must not even mention them. Yet they are the things which make or spoil the work. Let me say, then, as a dogmatist, that the training school should equip the teacher for the grammar grades with technical grasp of the history of our own country, from the beginning, at

least a bird's eye view of world history and a good appreciation of the method of presenting historical facts to immature minds. This will include all those details about dates, charts, notebooks, compositions. Out of this mass of essential knowledge, the teacher must in the course of time work out a few principles. In the main they will be: Not to try to force great principles in polysyllabic words on immature minds. Not to trust to a skimming reading as a method for imparting of permanent historical knowledge. To be satisfied if relatively small area is well covered and in correlated subjects, as civics, to strive to give ideas of dynamic rather than static government. (By way of parenthesis let me say that the substance of a little book by Dr. Reinsch which I saw recently comes in as an illustration of what I mean better than anything else I know.) There are two assertions in the paper by Professor Black to which I would call particular attention and enlist every teacher with him to put the false notions he mentions down. One is the idea that any one can teach history, an idea which is twin to the one that history can be studied anywhere. Both these may be true but the emphasis certainly is wrong. Perhaps anyone can teach history but it is not because there is so little to teach; likewise, history may be studied anywhere, but it is after learning how. Professor Black's other point is a caution against too early generalization without mastery of facts. That is where all history teachers must find themselves sooner or later. Give elementary pupils the facts.

Now, I should like to discuss the points I have outlined elsewhere relative to the history work we should look for in the college of liberal arts, and the encouragement that should be given to specialization in history during a student's undergraduate years. Here again opinions must suffice. I have observed that so far as history is concerned, the young people who come through our colleges may be divided into two marked types with some between, of course: Those to whom history is the *sine qua non* of a college education, who may be almost pedantic in their appreciation of it, and the type which apparently has none of the historical sense. To this type belonged the young woman of literary training who amused her friends some time ago when discussing with an old soldier of the '60's the marvel to him of the putting of the statue of General Lee in Washington with the great of Virginia. "And why shouldn't they," she asked so sweetly, that she was plainly not championing the policy of forgiveness, but, rather, oblivious to the great struggle which once was. To save time then let me be arbitrary again and say that in the college of liberal arts a knowledge of his own purpose should guide the student and his advisers quite largely in his choice of courses. Our curricula of numerous history courses have, of course, come to stay. A student can not take everything that is offered in all lines. If he is going to devote his life to history he can well afford to equip himself thoroughly in the lines of work that are to be contributory to this main course. He will need the languages, the general culture courses. Too early specialization, for him at least, it seems to me, is not the best thing. The man who is in college because he has four years to spare, to look around, to get culture, to decide what he wants to do, and who ultimately

will enter business or a profession, can well afford to get his culture in history well mastered in its main and allied branches. He must get the method in college or never.

Dr. Stearns has so well stated the belief of all of us about the necessity of acquiring historical method, an acquaintance with historical material, and the mastery of specific facts, and every day's work is so persistent in its re-enforcement of these ideas that I pass this phase of the work of the university with this confirmatory reminder, made as emphatically as I can, and turn to a discussion of what we can all do by way of co-operation in historical research, collection of data and the dissemination of the right spirit toward history.

First, then, it is apparent to you that a generation of students brought up on the doctrines taught in the various papers this afternoon would form a pretty good nucleus of the kind of citizens who will look after the history teaching and conservation of material needed in a new state. We must do our utmost, therefore, to make our doctrines dynamic. But this is quite general. I shall be more specific.

Second, while we are training young men and women in college and secondary school to appreciate history for the culture it gives, is it not possible to train directly, at times, toward a proper valuation of the work leaders in history in the state are doing? Here is the work of the State Historical Society for example. (Here I beg to make a personal explanation to the effect that my acquaintance with the work of the society in the state is at present of necessity limited to an examination of the reports): but how many of our younger citizens are being trained to look upon its work as something valuable? I do not mean to imply that every high school student should think any crude effort of his worthy to be incorporated in the careful reports of that society, but could not high school teachers find time in some exercise or other and in a formal way, too, to explain the purpose of the society and in this way influence the minds of those who, after all, should be most interested in the history of North Dakota, namely, the future citizens, born here, whose ties and interests will be here? To be more specific still, and personal, too, for by that means I think I can make my point, I remember that during my high school days in another state (or was it after) I once heard from a teacher that the state had an historical society where papers were frequently sent for filing for possible future use! This was the extent of the information. (I remember being drilled, however, on the names of the state officers at the time.) You can draw conclusions, relative to North Dakota. Perhaps we now appreciate historical societies more but I may say with evident truth that had I lived in my youth on the very ruins of a Mycenae, I should have known about as much about the cordial relations existing between Mycenae and historical societies as the Greek laborer of the eighteenth century knew concerning the value of his Mycenae to the world.

Third, and I here follow the cue given by the paper of Dr. Stearns, men in public school work, as a class, are the type who should take an interest in the saving of this abundant material, ethnological, sociological

and purely historical. They may do it themselves or by proxy. But it requires training. They should take an interest in it. Looking toward this co-operation we are discussing, higher institutions should make it worth while, as I have no doubt they do, by giving recognition, furnishing assistance, sending documents to those who are interested and making it apparent that the cause is a worthy one and he who engages in it as meritorious as he who preserves the pedigree of a cow. North Dakota is a state of villages and very small cities. This is likely to continue true. There are therefore no great libraries available. This makes it doubly important that there be co-operation in this matter. Local librarians should be in communication with those who are interested in local historical matters. Perhaps they are extensively; my observation is limited. Here again local public school men can find a field. It is fully as pleasureable and perhaps as good a road to fame as some of the things public school men are called to do socially. If the sentiment of a community is not up to seeing a teacher searching out some point in local history in a small way, after a shock or two of this kind it will become used to it. But that we who are in our respective institutions at different points in the state can do ourselves and others some good I am convinced. I am trying it relative to a matter of sectional interest. It came up incidentally. All told it would not merit thirty lines of permanent record anywhere, perhaps. Possibly, indeed, the matter is old. But if it is, I could find no record of this. It is just the kind of thing one may find in any corner of a new state.

Fourth, a point I have touched upon before, if anyone has the time to set forth historical matters that have already attracted attention, where work should be done, or if there are documents available or material wanted, it would seem wise to publish these things for the benefit of those interested. But I am on unfamiliar ground and I leave further discussion of this to others.

Our discussion is already extensive enough in its scope to show that no man who lays claim to serious purpose or to true scholarship need lack for occupation or a chance to improve his mind or add to the fund of human knowledge. The great question of resources, of scholarships, of recognition, I no more than touch upon, partly because it is undefined, and must be worked out in the future, and partly because I have undertaken to say a little about what individual effort can do. Nevertheless I would add one point in detail, which bears more on history teaching throughout the state than on what I have just been discussing. It has to do principally with the equipment of history reference libraries. Fifth, then, I would urge that teachers, especially in the smaller towns which have a high school, appreciate fully the value of suitable historical material in the reference library. This implies that teachers are informing themselves carefully and technically on this subject, that the inspector of high schools is using his advisory position wisely in the matter and that teachers are following suggestions offered concerning needed material on history in the smaller schools. In the same manner I would call attention to how committees, clubs and citizens who are interested in libraries

should co-operate with teachers where feasible in equipping the history section of the library with books that are of real value to the student. And to be more specific still, I would recommend that at some meeting of the association, unless the matter has been treated recently, a paper be read on the proper equipment of a department library in high school history.

In concluding this discussion of the history group I may be permitted to say in ordinary English that those teachers who are working in these lines have every reason to be glad to do the work they are doing. Milenniums may not be built entirely from a well trained intellect, and we have big problems to solve along these lines, but it is hard to find a better place, if the giving to our students the right kind of face toward the future is our aim. And there need be no apology for the work. Whoever thinks so, let him look up the figures on money wasted on extravagances, let him compare them with, after all, paltry sums spent on education; let him as a student of history consider the vast disparity between money wasted because of threatened war, because of gun boats, because of labor riots and race hatred, with amounts paid out for education in the arts of peace, let him compare the results of the two kinds of expenditures as he honestly sees them, and then teach on.

DEPARTMENT OF
MUSICAL EDUCATION

REPORT OF THE MUSICAL DEPARTMENT STATE TEACHERS' ASSOCIATION

Owing to sickness and the irregularity of train service the program arranged for the musical department was not carried out, but there is no lack of enthusiasm and interest in this department of educational work.

We feel confident that since the time of the next meeting is so much more favorable both to the teachers of the state and outside talent which it may be desirable to secure, that we will have a large and interesting meeting at the November gathering in Bismarck. The association at Minot unanimously appointed Miss Mary E. Pett to arrange the program for the next meeting.

FANNIE C. AMIDON,
President.

HOW TO TEACH MUSIC IN THE HIGH SCHOOL.

FANNY C. AMIDON.

We hear much today in all educational meetings of the great importance of giving the child a vocational training that he may not become a burden upon society. While we would not depreciate the strong trend that education is taking along this line, we feel that there is a word to be said in regard to making the life that is maintained, by so many hours of hard unremitting toil, worth the great struggle. No one can read the magazines and papers of today without realizing the appalling truth that too many of our American citizens, in the intense struggle and competition of life, have had their wits and intellects sharpened at the expense of their morals. It is our duty to train every child to understand and to enjoy what is good and beautiful, whether it be poetry, painting or music. While music may not seem to have a practical value it is as essential to life as friendship. It makes man happier, ennobles him, helps him to realize a higher intellectual, moral and spiritual standard. It is what song is to the bird, what love is to life. It cannot have a market value; it is one of the things that so enlarges and deepens the sympathies that life can no longer stoop to cruelty, hatred and wrong for mere sordid gain.

Last year wishing to have definite knowledge in regard to the amount of work done in music in the public schools of North Dakota, I divided the state into four sections, and had four students, doing special work in music in our Normal, gather statistics in regard to the number of graded schools in each section employing special teachers of music in their schools or giving any time to the study of music. The results were as follows: In the southeastern section of the state there are sixty-eight graded schools, twenty-three of which have either a special teacher of music or one of the grade teachers doing some special work in music. In the northeast section there are sixty-seven graded schools with twenty-three special teachers of music. In the southwestern section there are twenty graded schools with two special teachers of music. In the northwestern there are forty-seven graded schools with five special teachers of music. These statistics show that there are one hundred and thirty-nine graded schools in North Dakota entirely neglecting this very important phase of education. These statistics may not be absolutely correct, but they surely approximate the existing condition. Why is it that there is such a seeming lack of interest in this important phase of education? Is it because no credit is given to this work in our high schools or because, in too many places, the work has been unsatisfactorily done? I sometimes fear that the latter may be true. Is not too much time and energy spent in our schools producing performers of music? This I believe is a false emphasis. The mission of music in the schools should be, to train intelligent and appreciative listeners. The public schools should endeavor to train not the exceptionally gifted but the perceptions which all normally constituted

children possess in greater or less degree. We should look beyond the pleasure of the individual and hope to create an atmosphere in which good art may thrive and creative genius find stimulating sympathy.

It has been proven beyond doubt that every normal individual can be trained to enjoy and appreciate music, and knowing this I should have in every high school a course in musical appreciation, and in musical history and the choral work of the school should in a large degree correlate with these two courses. To aid in this work every high school should have a mechanical piano player and if possible a Victor machine with most carefully selected records. In order to explain the need of these mechanical instruments let me compare the growth in musical intelligence to the growth and development in literature. The lover of Shakespeare must give his dramas many readings; must often stop and decipher obscure meanings; must read slowly, frequently halt and reread, look up unknown words, trace allusions, compare one passage with another and thus by a slow and labored process he builds for himself a conception of the great works. Now, if the boys and girls are to appreciate the great works of Bach, Beethoven and Wagner, they must have as many opportunities of hearing and reviewing these great works as are afforded by the printed page. Only the most gifted musicians after years of unremitting toil, can acquire the technical ability necessary to play these great symphonic works, but with these mechanical instruments skillfully played, the boys and girls can have daily opportunities of hearing the thought substance of these great musical masterpieces. This develops the power to think music.

Let me give one concrete illustration in the high school music work. If we had selected Beethoven for our study for several months, I would have a discussion of his time, the literary contemporaries, the new Hegal philosophy, the political conditions, the tragic events in his life such as a drunken father, the loss of a loving and devoted mother in early life, a disappointed love, his deafness and the consequent isolation and loneliness his sensitive soul suffered from this affliction, his ungrateful nephew whose neglect and indifference brought to an untimely end one of the greatest and noblest minds that the world has ever known. Then I would analyze for them one of his great works, the Fifth Symphony, for example. In this symphony his own life seems to be mirrored. It is the picture of a deep soul tossed but triumphant. In the first movement you hear constantly the rappings of fate, the struggle with fate, the entire movement is rugged and terrible in force. The second movement is filled with meditation, contemplation and aspiration toward the ideal. The third movement pictures the abandonment to a frantic joy in forgetfulness. The fourth, or triumphant movement, seems to express the mastery in the wrestling and struggle of the first movement and the joy of a soul triumphant. He produces this wonderful emotional picture of a soul that has reached a higher than success and worldly triumph, and has found peace and victory, by one perfect chord, repeated through the last twenty-nine bars and preceded by six perfect cadences and by fifteen other measures on the perfect chord. After the above analysis I would have the

children hear these four movements played upon the pianola until they were thoroughly familiar with the structure, harmony, rhythm, melody, contrasts and variations. Then after a short talk upon the orchestra, they are ready to hear it given in its most perfect form by a great orchestra in the same manner that they are ready to hear one of Shakespeare's great dramas after careful study.

Along with the above work I would have the choral class, which would sing twice or three times a week, study some of the great choral works of Beethoven, for example The Creation Hymn. This work may seem impracticable, but with an enthusiastic teacher a pianola will soon pay for itself by giving ten cent entertainments to which the entire community will gladly come. Our state normal and all the best schools are training teachers to do this kind of work.

I believe that if a course in high school music were mapped out along the above suggestions the day would not be far distant when all clear minded and intelligent educators would be glad to give such work credit, and from my own experience I know the boys and girls, and especially the boys, enter into it with most joyous and eager enthusiasm.

HOW TO INTEREST BOYS IN MUSIC THROUGHOUT THE
EIGHTH GRADE AND HIGH SCHOOL.

CLARA B. ALDAHL.

How often I have heard a supervisor of music say, "What can I do to interest the boys in music?" This is the great problem, especially in communities that have had few opportunities to hear good music, and in schools where the boys have not had the advantages of music throughout the grades.

Every intelligent person knows that a boy passes through the most formative period of his life at about the age of fourteen. He undergoes a complete physical change. He grows so very rapidly that his muscles can hardly keep up with the pace. There is also a rapid change in the size of the larynx, and vocal chords, causing the voice to break and drop an octave in compass.

At this adolescent period an extreme self consciousness is manifested. I have known of boys who loved to sing in the lower grades, but at the self conscious period seems to be in a state of embarrassment. Because of this breaking in the voice many boys assume a contemptuous indifference to the music lesson. If some of the "ring leaders" in the room could be induced to take an interest in the music a wholesome change for the better would be brought about.

One of the best devices known to interest the boys in the eighth grade or high school is to organize if possible an orchestra or band. Start them out with easy marches and overtures, and then gradually study the more difficult and beautiful pieces. The most notable result of this instrumental work is the effect on the vocal music.

If possible organize a boys "Glee Club." Nothing will interest the boys more. Begin using unison songs and encourage them to sing even regardless of the quality of tone they might produce. The supervisor should strive more for spirit and enthusiasm than for musical perfection. In this enthusiasm the boys will lose their self-consciousness. Even though the singing be far from perfect, and not up to the average girls' Glee Club, still a boys' club will take with any audience. The citizens will manifest their interest in the boys' work, and will ask to have them appear at the different social functions. The boys will come to see that music is not something for girls, but a vital force, and that it does amount to something in their social relations, in the church and lodge as well as in the home.

At this adolescent period when the boys can sing but little, they should listen to a great deal of good music. If possible every school should have a mechanical piano player. It will be some time yet before the citizens will be led to see the value of this instrument, especially in the grammar schools and high schools. The large proportion of children in the public schools will never become musicians, but it is the desire of every supervisor of music that pupils should become intelligent listeners. I believe

the day is not far distant when in every school will be found a pianola, and that the pupils will take a graded course in listening to the music by the great composers.

Everything is to be gained by learning to listen accurately, intelligently and sympathetically. The great trouble is that we do not listen at all, and our young players have no public, for lack of real music listeners. Then, too, very few really understand a masterpiece.

When the mechanical player was first introduced a great many musicians would have none of it. They scoffed and said, "How mechanical!" How degrading to the art of music. Gradually as the educated but unmusical purchased the instrument and grew musical through its use the musicians began to "open their eyes," and found they were a great value. Now all the leading schools and conservatories have them.

Another way to interest the boys is through the generosity of local musicians and traveling musicians. If possible, get a male quartette to sing for them, or soloists, preferably men. These people will be glad to give of their talent with no compensation. All true musicians can recognize the direct bearing of such work in the formation of a musical community and appreciative audiences of the future.

In communities where the boys have had music since the first grade this adolescent period will not be as hard. Individual singing throughout the lower grades will do away with a great deal of embarrassment that might otherwise be manifested in the upper grades.

When boys enter the high school or eighth grade without any previous musical training, it is impossible to give them just the work they need. They are as if they came to school without knowing the alphabet, and were forced to recite with pupils who were studying Shakespeare. If possible form an extra class for these pupils. They might recite in another room with the grade teacher for a time during the regular music period. These boys should never be excused from singing. If one child be excused there is great danger that throat trouble will become contagious.

In most high schools the choruses, glee clubs, etc., are merely elective. A better plan is that of New York City where each pupil must attend chorus practice once or twice a week. Even though a boy sings but little, just to sit under the influence of good music for an hour or so a week must have an effect for good that we may not realize. There are so many demands upon the pupils in the way of athletics, debating societies, class meetings, etc., after four o'clock that it is almost impossible to maintain proper interest in the music class conducted after school hours.

At this period of changing voice interest the pupils in the musical history and biography. Give short talks on the lives of the composers. and make these talks as short and interesting as possible. Give some of the theory of music, but keep it interesting.

Another important point is the selection of songs that will interest the boys. Give songs that are full of spirit and with words that would appeal to them. Use a great many unison songs. Follow up this with bright stirring songs, having the melody in the boys' part.

We all agree that the great end of all music teaching in the grades and high school should be first to develop in the pupils a love for good music. Secondly, they should learn to use the voice properly and to sing with expression. Lastly, they should have some knowledge of musical history and biography. With this end in view let us all work faithfully.

NECROLOGY.

John Macnie, professor emeritus of French and Spanish in the State University, died, after an illness of some months, on October 31, 1909, at the residence of his son, Dr. John S. Macnie, in Minneapolis.

Professor Macnie was a native of Scotland and a graduate of the University of Glasgow. Having come to this country soon after the close of the Civil War, he taught for nearly twenty years in private schools in the east. His connection with the university dated from the beginning of the second year of its history, the fall of 1885, when he came to take up the duties of the newly established professorship of French and German. The work of a professor in those early days was not confined within the limits of his own department, and so at times Professor Macnie was called upon to teach, as Dr. Merrifield has said in tribute to him, "Latin, Greek, Philosophy, Psychology, History, Physics, Higher Mathematics and English Literature." His scholarship was remarkable not less for its range than for its depth and accuracy. He was a voracious reader and was endowed with an exceptionally retentive memory. His intellectual interests were as wide as the field of knowledge. He often surprised specialists not only by his grasp of the general principles, but also by his knowledge of the minutiae, of their subjects. His teaching, illumined by apt illustrations, drawn from his vast store of learning, was inspiring and suggestive. His colleagues in the faculty shared with his students their admiration for him as a scholar and their love for him as a man. He was the soul of courtesy, refinement and unselfishness. No personal sacrifice was deemed too great, if by it he could serve another.

His published works include an algebra, a geometry (widely used in this and other states as a text-book), a treatise on the theory of equations, and a novel entitled, "The Diothas, or a Far Look Ahead," which has been thought by some to have given Edward Bellamy the suggestion for his "Looking Backward." Occasional poems written by him for the University paper, "The Student," exhibit a rare nobility of sentiment and beauty of diction.

Failing health caused him to retire from the active duties of his chair at the University at the close of the session of 1906-7, and in June, 1909, The Carnegie Foundation for the Advancement of Teaching, in recognition of his services to the cause of higher education, voted him a pension.

His death, as has been said, occurred in Minneapolis. There a funeral service was held, after which his body was taken to Easton, Conn., to rest by the side of the wife of his early manhood, who survived their marriage less than a year. At the same hour as the funeral in Minneapolis, a memorial service was held at the University, at which, after introductory remarks by President McVey, tribute was paid to him as a friend by Mrs. F. C. Massee of the class of 1893, as a colleague by Dean M. A. Bran

non, as a churchman by Rev. J. K. Burleson, and as a citizen by Hon. Tracy R. Bangs.

At the University, that he loved so well and served so faithfully, his name will be perpetuated by Macnie Hall, which the trustees, after his retirement, named in his honor, and by his university hymn, Alma Mater, of which Dr. Merrifield has truly said that it has never been excelled, if, indeed, it has ever been equalled in dignity and beauty as a college song.

PROCEEDINGS

Twenty-fourth Annual Session

OF THE

North Dakota Educational

Association

Held at Bismarck, October 18 to 21, 1910

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Department of Education
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LETTER OF TRANSMITTAL

*Hon. E. J. Taylor, State Superintendent of Public Instruction, Bismarck,
North Dakota:*

DEAR SIR: I have the honor herewith to submit to you this volume of proceedings of the twenty-fourth annual meeting of the North Dakota Educational Association, printed under authority of legislative enactment and under the supervision of the department of public instruction.

Respectfully yours,

CLYDE R. TRAVIS,
Secretary N. D. E. A.

HISTORICAL TABLE

| Date | Place | President | Secretary | Mem-ber's | Fees |
|--------|--------------|-------------------|-------------------|-----------|----------|
| 1887 | Fargo | John Ogden | Joseph Kennedy.. | 43 | \$ 29.50 |
| 1888 | Jamestown .. | Homer Sprague .. | Joseph Kennedy.. | 34 | |
| 1889 | Grand Forks | Wm. Mitchell.... | O. P. Rider..... | 48 | 27.00 |
| 1890 | Fargo | M. A. Shirley.... | W. M. House.... | .... | 43.50 |
| 1891 | Grand Forks | A. L. Woods..... | Miss E. C. Lewis. | 75 | 58.50 |
| 1892 | Valley City. | J. M. Devine..... | Miss M. Portner.. | 77 | 60.50 |
| 1893 | Wahpeton .. | L. B. Fancher.... | E. M. Warren.... | 94 | 79.50 |
| | | | (W. F. Lorin)* | | |
| 1894 | Hillsboro .. | C. E. Jackson.... | W. F. Lorin..... | 56 | |
| 1895-6 | Grand Forks | Joseph Kennedy.. | W. L. Stockwell.. | 135 | 105.50 |
| 1896 | Fargo | W. T. Perkins.... | W. L. Stockwell.. | .... | 104.00 |
| 1897 | Grand Forks | W. E. Hoover.... | L. H. Allen..... | .... | 119.00 |
| 1898 | Fargo | E. J. Taylor..... | A. M. Simpson.... | .... | 142.00 |
| 1899 | Grand Forks | W. L. Stockwell.. | George Martin.... | .... | 142.50 |
| 1900 | Fargo | G. A. McFarland. | George Martin.... | .... | 116.50 |
| 1901-2 | Grand Forks | Miss E. M. Stout. | George Martin.... | | |
| 1902 | Fargo | W. E. Hicks..... | George Martin.... | 135 | 120.50 |
| | | | (A. P. Hollis)* | | |
| 1903 | Grand Forks | C. C. Schmidt.... | A. P. Hollis..... | 258 | 203.50 |
| 1904 | Fargo | J. H. Worst..... | A. P. Hollis..... | 158 | |
| 1905 | Grand Forks | Joseph Carhart... | A. P. Hollis..... | 302 | 354.00 |
| 1906 | Fargo | P. S. Berg..... | A. P. Hollis.... | 323 | 402.00 |
| 1907 | Grand Forks | Vernon P. Squires | A. P. Hollis..... | 335 | 437.00 |
| 1908 | Valley City. | Mrs. M. M. Davis | C. R. Travis..... | 338 | 423.00 |
| 1909 | Minot | A. P. Hollis..... | C. R. Travis..... | 327 | 377.25 |
| 1910 | Bismarck ... | Fred E. Smith.... | C. R. Travis..... | 610 | 610.00 |

* Pro tem.

CONSTITUTION

ARTICLE I—NAME.

This organization shall be known as the North Dakota Educational Association.

ARTICLE II—PURPOSE.

The purpose of the association shall be to elevate the character and advance the interests of the profession of teaching and promote the cause of education in North Dakota.

ARTICLE III—DEPARTMENTS.

Section 1. This association shall consist of the following departments:

1. Higher and professional education.
2. Secondary education.
3. County superintendence.
4. Elementary education.
5. School administration.

Sec. 2. Other departments may be organized by a majority vote of the association at a regular annual meeting upon the petition of ten active members.

ARTICLE IV—MEMBERSHIP.

Section 1. There shall be two classes of members, active and associate.

Sec. 2. Active members shall consist of all those engaged in educational work who shall have paid the annual dues for the preceding year.

Sec. 3. Any other person who has been a member and who has paid his dues for the two preceding years shall be considered an active member.

Sec. 4. Any person engaged in educational work may become an active member by the payment of annual dues and his membership fee.

Sec. 5. Any person paying an annual fee of \$1 may become an associate member.

Sec. 6. The membership fee and annual dues shall be \$1 each.

Sec. 7. Active members only shall have the right to vote in this association.

Sec. 8. All active members shall be entitled to a volume of the proceedings.

ARTICLE V—OFFICERS.

Section 1. The officers of this association shall consist of a president, two vice presidents, secretary, treasurer and an executive committee.

Sec. 2. The executive committee shall consist of the president and secretary of the association for the ensuing year, the state superintendent, and one member annually elected from each of the different departments.

Sec. 3. The president of the association shall be ex-officio president of the executive committee.

Sec. 4. The duties of the president, secretary and treasurer shall be such as usually pertain to such officers.

Sec. 5. The duties of the executive committee shall be to prepare the program and to make such arrangements as are necessary for the annual meeting.

Sec. 6. The member from each department shall prepare the program for his department.

Sec. 7. Each department shall be administered by a president, vice-president and a secretary, the state superintendent being, ex officio, president of the department of county superintendence.

Sec. 8. No person shall be elected to any office in the general association or in any department who is not an active member of the association.

ARTICLE VI—COMMITTEES.

Section 1. A committee of five on resolutions and a committee of three on necrology shall be appointed by the president at the first general session of the association.

Sec. 2. The committee on nominations shall consist of two members to be elected by the general association and one from each of the departments at the first session of each.

ARTICLE VII—TIME AND PLACE.

Section 1. The association shall meet in Grand Forks and Fargo on alternate years and at such date as the executive committee shall determine.

ARTICLE VIII—AMENDMENTS.

This constitution may be amended by a two-thirds vote of the active members present and voting at any regular meeting, notice of such amendment having been given at the first session of the association.

AMENDMENTS.

Amendment to Article V, section 4 (passed in 1907).

Sec. 4. The duties of president and treasurer shall be such as usually pertain to such offices.

The secretary shall perform such duties as are required of him by the executive committee and shall receive fifty dollars per annum for his services, and he shall receive further all necessary expenses of conducting his office.

Amendment to Article VII (passed in 1907).

The association shall meet annually at Grand Forks or Fargo, or such other cities of the state as the association may from time to time elect.

Article IV was amended in 1908 to read as follows:

Section 1. There shall be two classes of members, active and associate.

Sec. 2. Any person engaged in educational work and any member of a board of education shall become an active member of this association upon payment of the annual dues of one dollar; provided that the adoption

of this amendment shall not effect the privileges of any person now enjoying membership in this association.

Sec. 3. Any person not engaged in educational work shall become an associate member of this association upon payment of the annual dues of one dollar.

Sec. 4. Active members only shall have the right to vote in this association.

Sec. 5. Every member shall be entitled to a volume of the proceedings.

Article V was amended in 1908 to read as follows:

Section 1. The officers of this association shall consist of a president, two vice presidents, a secretary, a treasurer, an executive committee and a finance committee.

Sec. 2. The executive committee shall consist of the president and secretary of the association for the ensuing year, the state superintendent, and one member elected annually from each of the following departments: Department of Higher and Professional Education, Department of Secondary Education, Department of Elementary Education, Department of Superintendence, Department of School Administration.

(Sections 3 and 4 are unchanged.)

Sec. 5. The duties of the executive committee shall be to prepare the program and make such arrangements as are necessary for the annual meeting. The annual meeting of the executive committee shall be held prior to the fifteenth of June of each year. Each member of this committee elected from a department shall, at this annual meeting, present a tentative program for the department from which he was elected. The committee shall have the data for the final program in the hands of the secretary six weeks prior to the date set for the annual meeting.

(Sections 6, 7 and 8 are unchanged.)

Sec. 9. The finance committee shall consist of three members elected annually by the association.

Sec. 10. The duties of the finance committee shall be to authorize the payment of all bills, and to audit the accounts of the secretary and treasurer.

Article VII as amended in 1909.

The association shall meet annually at Grand Forks or Fargo or such other cities in the state as the association may from time to time elect, between the date of October 15 and November 15, on such specific dates as the executive committee shall determine.

Amended in 1910 as follows:

Article III, section 1, to read

This association shall consist of the following departments:

1. Higher and Professional Education.
2. Secondary Education.
3. Elementary Education.
4. Superintendence.
6. Rural School Education.

Article V, section 2, amended to read:

The Executive committee shall consist of the president and secretary of the association for the ensuing year, the state superintendent of public instruction, and one member elected annually from each of the following departments: Higher Education, Secondary Education, Elementary Education, Superintendence, School Administration, and Rural School Education.

OFFICERS AND COMMITTEES FOR 1910.

GENERAL ASSOCIATION.

President Supt. F. E. Smith, Wahpeton
 First Vice President Supt. Minnie J. Nielson, Barnes County
 Second Vice President Miss Eula J. Miller, Fargo Public Schools
 Treasurer Superintendent C. Ellithorpe, Williston
 Secretary Professor Clyde R. Travis, State Normal, Mayville

DEPARTMENT OF HIGHER AND PROFESSIONAL EDUCATION.

President Professor M. A. Brannon, State University
 Vice President Professor A. D. Weeks, Agricultural College
 Secretary Prof. P. G. Knowlton, Fargo College

DEPARTMENT OF SECONDARY EDUCATION.

President Superintendent S. Henry Wolfe, Minot
 Vice President Superintendent H. A. Tewell, Cando
 Secretary Superintendent Franklin Thordarson, Mayville

DEPARTMENT OF ELEMENTARY EDUCATION.

President Superintendent C. C. Gray, Grafton
 Vice President Superintendent B. A. Wallace, Traill County
 Secretary Miss Eula Miller, Fargo Public Schools

DEPARTMENT OF SUPERINTENDENCE.

President State Superintendent W. L. Stockwell, Bismarck
 Vice President Superintendent Helen Prindeville, Grand Forks County
 Secretary Deputy State Supt. E. J. Taylor, Bismarck
 Member of Exec. Com., Supt. Dalton McDonald, Towner, McHenry County

DEPARTMENT OF SCHOOL ADMINISTRATION.

President J. S. McNish, Fairdale
 Secretary A. B. Cox, Wimbledon
 Member of Executive Committee J. P. Tandberg, Driscoll

DEPARTMENT OF SCIENCE AND MATHEMATICS.

President Superintendent C. C. Gray, Grafton
 Vice President Professor E. F. Chandler, State University
 Secretary Prof. Clyde R. Travis, State Normal, Mayville

DEPARTMENT OF HISTORY, CIVICS AND SOCIAL SCIENCES.

President Professor R. M. Black, State Science School, Wahpeton
 Vice President Pres. W. B. Thomas, Jamestown College, Jamestown
 Secretary Miss Bertha Palmer, Larimore Public Schools
 Directors.... Dr. J. M. Gillette, University; Supt. Mattie M. Davis, Cass Co.

Chairman of Com. on BiographyDr. Wallace Stearns, University
 Chairman of Com. of Indian Mythology.....Dr. O. G. Libby, University
 Chairman of Com. on Travel and Adventure.....H. L. Rockwood, Enderlin

DEPARTMENT OF MUSICAL EDUCATION.

PresidentMiss Fannie C. Amidon, Valley City
 Vice PresidentMiss Clara B. Aldahl, Valley City
 SecretaryMiss Eleanor Dougherty, Genesee Public Schools
 Program CommitteeMiss Mary E. Pett, Minot Public Schools

DEPARTMENT OF INDUSTRIAL EDUCATION.

President.....Pres. W. M. Kern, State Normal Industrial School, Ellendale
 Vice PresidentC. A. Brockus, Minot High School
 Secretary(To be chosen)

DEPARTMENT OF RURAL SCHOOL EDUCATION.

PresidentMrs. Jean McNaughton Stevens, Towner
 Vice PresidentProf. G. W. Randlett, Agricultural College
 SecretaryMiss Anna O. Gjeldstad, Velva, N. D.

EXECUTIVE COMMITTEE.

ChairmanSupt. F. E. Smith, Wahpeton (Pres. of Gen. Association)
 Dept. Higher and Professional Education, Prof. M. A. Brannon, University
 Dept. Secondary EducationSupt. S. Henry Wolfe, Minot
 Dept. Elementary EducationSupt. C. C. Gray, Grafton
 Dept. of SuperintendenceSupt. Dalton McDonald, McHenry Co.
 Dept. School AdministrationJ. P. Tandberg, Driscoll
 State Supt. of Public InstructionW. L. Stockwell, Bismarck
 Secretary of General Association...Clyde R. Travis, State Normal, Mayville

COMMITTEE ON NECROLOGY.

President G. A. McFarland, State Normal, Valley City, Chairman.
 Superintendent W. E. Hoover, Fargo.

COMMITTEE OF SEVEN.

Professor C. C. Schmidt, University, Chairman.
 President T. A. Hillyer, State Normal, Mayville.
 Supt. B. A. Wallace, Traill County.
 Professor D. E. Willard, Agricultural College.
 President W. M. Kern, State Normal-Industrial School, Ellendale.
 Superintendent W. A. Godward, Devils Lake.
 Professor P. G. Knowlton, Fargo College.

COMMITTEE ON AUDIT.

Dr. J. M. Gillette, University, Chairman.
 Supt. W. E. Hoover, Fargo.
 Supt. B. E. Groom, Cavalier County.

OFFICERS FOR 1911.

GENERAL ASSOCIATION.

President N. C. MacDonald, Mandan
First Vice President Supt. Martha P. Tatem, Williston
Second Vice President Miss Fannie C. Amidon, Valley City
Secretary Clyde R. Travis, Mayville
Treasurer Richard Heyward, Grand Forks

HIGHER AND PROFESSIONAL EDUCATION.

President W. M. Kern, Ellendale
Vice President Mrs. Una B. Herrick, Valley City

SECONDARY EDUCATION.

President Nelson Sauvain, Casselton
Vice President L. P. Linn, Kenmare
Secretary C. G. Ellithorpe, Williston

ELEMENTARY EDUCATION.

President B. A. Wallace, Valley City
Vice President A. C. Gleason, Underwood
Secretary Miss Beatrice Johnstone, Grand Forks

SUPERINTENDENCE.

President E. J. Taylor, Bismarck
Vice President Supt. W. G. Crocker, Lisbon
Secretary Deputy State Supt. W. E. Parsons, Bismarck
Member of the Executive Committee

SCHOOL ADMINISTRATION.

President J. A. Field, Bismarck
Vice President
Secretary

SCIENCE AND MATHEMATICS.

President E. F. Chandler, State University
Vice President G. W. Randlett, Agr. College
Secretary C. R. Travis, Mayville

HISTORY, CIVICS AND SOCIAL SCIENCES.

President Wallace N. Stearns, University
Vice President Mr. Trimble, Agr. College
Secretary-Treasurer Miss Bertha M. Palmer, Rugby

INDUSTRIAL EDUCATION.

PresidentA. E. Dunphy, Ellendale
Vice PresidentMiss Jessie Hoover, Agr. College
SecretaryA. B. Hess, Larimore

MUSICAL EDUCATION.

PresidentFred W. Wimberly, Jamestown
Vice PresidentMiss Edith E. Brant, Mayville
SecretaryMiss Fannie C. Amidon, Valley City

RURAL EDUCATION.

PresidentMrs. Jean McNaughton Stevens, Towner
Vice PresidentMacNeal James, Valley City
SecretaryMiss Anna O. Gjeldstad, Velva
TreasurerA. H. Gleason, Underwood

MEMBERSHIP LIST.

| | |
|---------------------------|----------------------|
| Aaker, H. H. | Fargo |
| Ackerman, Ethel | Tower City |
| Abbott, N. C., | Agricultural College |
| Adamson, Mabel | Linton |
| Adelman, Frances | Stark |
| Alberts, Mrs. Hattie | Kenfield |
| Albrecht, Edna M. | Wahpeton |
| Aldrich, Eleanor M. | Grand Forks |
| Aldrich, Mollie J. | Grand Forks |
| Alexander, W. J. | Rolla |
| Amerland, Blanche | Wahpeton |
| Amidon, Fannie C. | Valley City |
| Amley, Clara C. | Forbes |
| Amley, Camilla | White Earth |
| Anderson, Andrew | Driscoll |
| Anderson, Christine | Almont |
| Anderson, J. E. | Baldwin |
| Anderson, L. J. | Box 492, Minneapolis |
| Arbery, H. W. | Minneapolis |
| Arntz, Alida | Burnstad |
| Arntz, William | Burnstad |
| Asved, Mina H. | Almont |
| Avery, E. W. | Box 150, Minneapolis |
| Baarman, Cornelius | Grand Forks |
| Barnes, Mamie | Wilton |
| Barr, Anna A. | Max |
| Barton, O. A. | Valley City |
| Batty, Maud | Hoosier |
| Batty, Minnie | Hoosier |
| Baur, Bertha | Wahpeton |
| Bear, L. E. | Mandan |
| Beebe, Mrs. Jennie | Belfield |
| Becker, Minnie | Max |
| Beckman, Jennie | Edmunds |
| Beers, Mae | Grand Forks |
| Bell, W. B. | Agricultural College |
| Bennett, Dana | Wade |
| Berg, A. C. | Granville |
| Berg, Clara | Hatton |
| Berg, Gunda | Hatton |
| Berg, Minnie | Hatton |
| Berg, P. S. | Dickinson |
| Bergman, H. F. | Agricultural College |

| | |
|---------------------|----------------------|
| Bengston, Helen | Youngtown |
| Bengston, Hibling | Bluegrass |
| Bevan, A. H. | Fargo |
| Bird, Olive J. | Grand Forks |
| Bittinger, L. M. | Petersburg |
| Black, Mary E. | University |
| Black, R. M. | Wahpeton |
| Blank, Ava B. | Grand Forks |
| Bohn, Paul | Mott |
| Bold, J. M. | Garrison |
| Bolley, H. L. | Agricultural College |
| Bolter, Fred | Canfield |
| Borderud, Ida | Carrington |
| Bowen, Agnes | Napoleon |
| Boyle, Agnes | Bismarck |
| Boysen, Mary | Bismarck |
| Bradley, John H. | Ryder |
| Brannon, M. A. | University |
| Brant, Edith E. | Mayville |
| Brast, Sidonia | Fleak |
| Bridvold, Ida | Bismarck |
| Breen, Agnes | Mandan |
| Breikley, Sarah | Strain |
| Brekken, John L. | Turtle Lake |
| Breman, Leta A. | Surry |
| Brennecke, Alvina | Bismarck |
| Brewer, G. W. | Wilton |
| Brinton, Florence | Minnewaukon |
| Brittin, Katherine | Brittin |
| Broadwater, S. G. | Devils Lake |
| Brophy, Nellie | McKenzie |
| Brown, B. W. | Fargo |
| Brost, Sidonia | Fleak |
| Brudle, Carrie E. | Hazleton |
| Bruner, Jesse | Grand Forks |
| Brydges, Maude E. | Grand Forks |
| Buckley, Marguerite | Mandan |
| Budlong, Mrs. | Bismarck |
| Burch, E. G. | Wahpeton |
| Burchard, F. F. | Grand Forks |
| Burckhalter, I. W. | Valley City |
| Burgeois, Martin | Bismarck |
| Burley, Mrs. | Pembina |
| Burnes, Agnes | Wilton |
| Burns, Rosalie | Mandan |
| Burr, Elizabeth | Grand Forks |
| Burwell, Robt F. | Wahpeton |
| Butterfield, H. F. | Mayville |
| Byrne, Lulu | Grand Forks |

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|----------------------------|-------------|
| Byrnes, Nora C. | Alexander |
| Cadell, M. C. | Ft. Rice |
| Cady, Clara B. | Glen Ulen |
| Cain, Mary J. | Carrington |
| Caldwell, May A. | Grand Forks |
| Cameron E. S. | Wahpeton |
| Carlson, Anna | Towner |
| Carlson, Emma L. | Valley City |
| Cass, Edna | Mandan |
| Casselman, Mrs. Ella | Bismarck |
| Castor, Florence R. | Bismarck |
| Cavett, C. E. | Sheldon |
| Cecky, Agnes | St. Anthony |
| Chalfin, Mrs. J. F. | Sterling |
| Champine, Jennie. | Fargo |
| Chandler, E. F. | University |
| Chanley, Mamie | Hartford |
| Christenson, P. E. | Bottineau |
| Clarke, Nora. | Grove |
| Clark, Ina Belle. | Mandan |
| Cline, Genevieve | Bismarck |
| Clipfell, C. D. | Wahpeton |
| Cobb, Bessie | Fleak |
| Cockburn, Ethel | Mandan |
| Colinson, Mary | Devils Lake |
| Colliton, Mae | Mandan |
| Colton, Hariet A. | Driscoll |
| Conley, Minnie | McKenzie |
| Correll, C. M. | Mayville |
| Cotes, G. W. | Aetna |
| Courtney, Nellie | Wilton |
| Couture, Lillian | Mandan |
| Crane, A. G. | Jamestown |
| Crawford, Elvira | Brittin |
| Creegan, C. C. | Fargo |
| Crites, Rose. | Jamestown |
| Crocker, W. G. | Lisbon |
| Crowe, Edw. J. | Anamoose |
| Crum, Abigial | McKenzie |
| Cullen, Mary | Mandan |
| Culver, O. C. | Glen Ullin |
| Cunningham, Elizabeth | Grand Forks |
| Curtis, C. C. | Valley City |
| Davis, Frederick | Hettinger |
| Davis, Mrs. Mattie M. | Fargo |
| Davies, Helen | Grand Forks |
| Danford, Edna | Bismarck |
| Darner, R. W. | Wahpeton |
| Deem, M. G. | Valley City |

| | |
|------------------------|---------------------|
| Derreck, Dorothy | McKenzie |
| Dewey, Kate L. | Larvik |
| Digby, Sue | Bismarck |
| Donoldson, Laura | Dickey |
| Doulon, Katherine | Medina |
| Dooley, Mary A. | Mandan |
| Dougherty, Eleanor | Grand Forks |
| Drake, Hazel | Napoleon |
| Dunbar, B. A. | Lidgerwood |
| Duncan, H. E. | Lock Box 585, Fargo |
| Dunphy, A. E. | Ellendale |
| Dudley, Belle | Grand Forks |
| Dugan, Jean | Mandan |
| Durand, Anna | Wilton |
| Dyer, William | Mott |
| Dyke, W. F. | Westfield |
| Eastman, Earl | Rose Glen |
| Eberly, C. F. | McCluskey |
| Edwards, E. R. | Minto |
| Eggleston, Mrs. Edward | Napoleon |
| Ehrenreich, Ida | Fallon |
| Ellingson, Josephine | Jamestown |
| Ellison, Robert | Parkin |
| Ellison, William | Parkin |
| Ellithorpe, Clarence | Williston |
| Ellsworth, Hattie | Mandan |
| Erb, E. E. | Almont |
| Erickson, Margaret | Driscoll |
| Ersland, K. A. | Driscoll |
| Estrich, J. L. | Enderlin |
| Evans, Rosella | Anamoose |
| Evarts, Gertrude | Bismarck |
| Evarts, Nellie | Bismarck |
| Fait, Minnie | Carrington |
| Farrell, Verginia | Hazleton |
| Faulkner, Alma | Sterling |
| Feldman, Ive B. | Aetna |
| Fennell, Ida V. | Wimbledon |
| Ferguson, Florence | Larvik |
| Field, J. A. | Bismarck |
| Fields, Melissa | Mott |
| Fish, H. C. | Bismarck |
| Fisher, Alice | Tappen |
| Fisher, Fay E. | Dickinson |
| Fitch, H. N. | Braddock |
| Fjelde, Margaret | Canfield |
| Fogarty, M. F. | Taft |
| Forster, Geo. F. | Harvey |

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|------------------------------|-----------------------|
| Foster, Bina | Bathgate |
| Foster Florence | Bathgate |
| Fulton, Charlotte | Surry |
| Ferguson, Bertha | Grand Forks |
| Gallagher, Katherine A. | Grand Forks |
| Gaymon, Leah M. | Mayville |
| Gang, John | Cando |
| Gebbard, Vera | Flasher |
| Gillet, Alice | Driscoll |
| Gillette, J. M. | University |
| Girton, Ida | Rugby |
| Gjelstad, Anna | Velva |
| Gleason, A. H. | Underwood |
| Gleason, Marcia | Judson |
| Gleason, R. S. | Sioux Falls, So. Dak. |
| Godward, W. A. | Devils Lake |
| Gramlin, Kate | Wilton |
| Grandall, Lottie | Judson |
| Green, Estelle | Bismarck |
| Green, Rachel | Linton |
| Gretzinger, Laura | Devils Lake |
| Grieve, Margaret | Underwood |
| Grindstuen, Iver | McHenry |
| Groom, B. E. | Langdon |
| Grove, Nelda | Devils Lake |
| Groves, R. P. | Plaza |
| Grovon, N. G. | Park River |
| Haig, J. A. | Devils Lake |
| Haight, M. V. | Osnabrock |
| Hall, Effie | Grand Forks |
| Halver, Winnifred | Denhoff |
| Hanna, Geo. W. | Valley City |
| Hanson, Alvida | Mandan |
| Hansen, Emelia | Grand Forks |
| Hansen, Marie | Bismarck |
| Hanson, Henry H. | Linton |
| Hanson, Sven | Kensal |
| Harmon, Kate D. | Bismarck |
| Harter, Stella | Bernstad |
| Hartnett, Alice | Napoleon |
| Hartnett, Margaret | Napoleon |
| Hatherall, Rosalie | Grand Forks |
| Hays, Helen L. | Grand Forks |
| Helmar, Beatrice | Grand Forks |
| Hendrickson, Emma | Mandan |
| Herrick, Mrs. Una B. | Valley City |
| Hess, A. B. | Larimore |
| Hess, Eleanor | Mandan |

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|------------------------------|----------------------|
| Heyward, Aaron | Park River |
| Heyward, Richard | Grand Forks |
| Hillyer, Thos. A. | Mayville |
| Hinman, Lydia | Steele |
| Hoadley, Effie | Minnewaukon |
| Hodgell, Viola | Bismarck |
| Holland, Inga | Regent |
| Hollis, A. P. | Valley City |
| Hoover, J. L. | Kensal |
| Hoover, Jessie | Agricultural College |
| Hoover, W. E. | Fargo |
| Houseman, H. L. | Hope |
| Huber, Marie | Bismarck |
| Hult, G. | University |
| Hunt, A. B. | Sterling |
| Hunter, W. C. | Fairdale |
| Hurd, Orra | Steele |
| Husby, Edna | Mott |
| Hutchison, Lydia | Sterling |
| Inwood, Anna | Leice |
| Inwood, Ella | Leice |
| Jacobson, Karine | Almont |
| James Mc Niel C | Valley City |
| Johnson, A. M. | Almont |
| Johnson, Emma | Regent |
| Johnson, Evelyn | Regent |
| Johnson, Hanna | Bismarck |
| Johnson, Hulda | Baldwin |
| Johnson, John A. | Hillsboro |
| Johnson, Linda | Painted Woods |
| Johnson, Minnie | Turtle Lake |
| Johnson, Morris | Valley City |
| Johnstone, M. Beatrice | Grand Forks |
| Jones, J. R. | Alta |
| Jones, J. S. | Valley City |
| Jones, Katherine | Sather |
| Joy, Fay | Bismarck |
| Judge, Claire..... | Grand Forks |
| Kalberer, Hortense | Hazleton |
| Kampen, I. A. | Cooperstown |
| Kane, Bessie M. | Stanley |
| Keller, Ralph | Almont |
| Keeley, Julia | Napoleon |
| Kelley, Vera | Driscoll |
| Kelly, Margaret | Mandan |
| Kelley, Winnie | St. Anthony |
| Kennedy, Joseph | University |
| Kennedy, Josephine | Mandan |
| Kennedy, P. H. | Kennedy |

| | |
|---------------------------------|----------------------|
| Kern, Wm. M. | Ellendale |
| Key, Katherine F. | Mandan |
| King, Herbert | Willa |
| Kitchen, Joseph | Sentinel Butte |
| Kling, E. A. | Linton |
| Knudson, Millie | Taylor |
| Kobe, Theressa | Larvik |
| Koch, F. H. | University |
| Koenman, Clara | Grand Forks |
| Kuhnes, E. L. | Wimbleton |
| Kupferschmidt, Magdeline | Jamestown |
| Ladd, A. J. | University |
| Ladd, E. F. | Agricultural College |
| Lamon, Reka | Kintyre |
| Lane, Harriet | Underwood |
| Lange, Lulu | Mandan |
| Lange, Lydia | Mandan |
| Larsen, Ella | Hope |
| Larson, Elizabeth | Strasberg |
| Lauden, Zelma | Lehr |
| Launners, W. M. | Westfield |
| Leach, Bessie | McKenzie |
| Le Daum, Henry | University |
| Leonard, A. G. | University |
| Lennertz, Gertrude | Minot |
| Levett, Herbert | Lamoine |
| Libby, O. G. | University |
| Linn, L. P. | Kenmare |
| Livengood, Mary E. | Wimbleton |
| Lobb, Albert J. | Grand Forks |
| Lockhart, Harriett | Devils Lake |
| Loftsgaarden, H. C. | Washburn |
| Lokken, O. J. | Velva |
| Lorin, W. F. | Mandan |
| Lovass, Minda | Bismarck |
| Luessen, Alma | Tioga |
| Luetha, O. J. | Valley City |
| Lumry, Mrs. O. H. | Garrison |
| Lundeen, Ida | Regent |
| Lyman, Alma | Aetna |
| Lyng, Alice | Wilton |
| Lytle, S. Blanche | Grand Forks |
| McAndrews, Mary | Williston |
| McBee, A. L. | Minneapolis |
| McCalmont, Florence | Napoleon |
| McCalmont, R. A. | Napoleon |
| McCarten, Tene | Foreman |
| McCumber, Mary E. | Grand Forks |
| Macdonald, Mrs. Katrine B. | Mandan |

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| MacDonald, N. C. | Mandan |
| McDonald, Dalton | Towner |
| McFarland, Geo. A. | Valley City |
| McGillic, Beatrice | Mandan |
| McGowan, Ada | Bismarck |
| McKenna, E. | Edgeley |
| McLain, J. F. | Towner |
| McLean, Jean | Baldwin |
| McLeod, Dorothy | Kintyre |
| McMahon, F. H. | Wahpeton |
| McMartin, Elizabeth J. | Grand Forks |
| McMartin, Margaret | Grand Forks |
| McMillan, P. A. | Carrington |
| McMullen, Lynn B. | Valley City |
| McNiel, Elizabeth | Grand Forks |
| McNish, J. S. | Fairdale |
| McNulty, Jeanette | Phoenix |
| McVey, Frank L. | University |
| Mangen, Helen | |
| Marquart, Blanche | Ft. Rice |
| Marsh, Evangeline | Ft. Rice |
| Martenson, Oline | Bismarck |
| Masters, Letitia | Crary |
| Mason, Marion | Wahpeton |
| Maxwell, H. H. | New Rockford |
| Meade, Myrtle | Morristown, S. Dak. |
| Meek, H. C. | Loring |
| Meisner, Katherine | Belfield |
| Melarvie, Anna | Mandan |
| Melarvie, Inez | Mandan |
| Melby, C. L. | Emerson |
| Mevig, A. M. | Aneta |
| Michelson, Mrs. John | Sweet Brier |
| Miller, A. G. | Sherbrook |
| Miller, Eula J. | Valley City |
| Miller, Grace | Mandan |
| Miller, Minnette | Bismarck |
| Mirick, Lilian | Napoleon |
| Mitchell, Estelle | Ong |
| Mitchell, A. J. | Belfield |
| Mitchell, Kate E. | |
| Mitchell, N. I. | Golden Valley |
| Moffet, Sarah | Menoken |
| Moine, Grace L. | Driscoll |
| Moore, Kate | Mandan |
| Moore, Wm. | Bismarck |
| Morgan, Marilda | New Salem |
| Morris, Sarah | Devils Lake |
| Morrish, Ada | Jamestown |

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|--------------------------|----------------------|
| Morrison, Nellie | Petersberg |
| Morrow, A. C. | New Salem |
| Murane, Clara | Linton |
| Murane, Mabel | Linton |
| Mustain, L. G. | Devils Lake |
| Nelson, Candis | Valley City |
| Nelson, C. J. N. | Beach |
| Nelson, Mabel | New England |
| Nelson, Mrs. M. H. | Sterling |
| Nielson, Minnie J. | Valley City |
| Nordstrom, Bessie | Almont |
| O'Brien, Kate | Fargo |
| O'Brian, Mary | Plaza |
| Oldham, Alice D. | Jamestown |
| Olin, Anna | Simms |
| Oliver, L. H. | White, Earth |
| Olson, Hilda | Bismarck |
| Omdahl, Ella | Regent |
| Orthmeyer, Bina J. | |
| Otterburn, W. H. | Fargo |
| Overland, Pauline | Underwood |
| Overton, Olive | Ft. Rice |
| Parsons, W. E. | Bismarck |
| Parker, Lyle | Mandan |
| Palmer, Bertha | Rugby |
| Palmer, W. C. | Fargo |
| Paulson, Elda | Pelican |
| Perkins, Katherine | Grand Forks |
| Perrott, G. St. J. | University |
| Peterson, Emil | Jud |
| Perrine, Laura L. | Valley City |
| Peterson, Esther | Painted Woods |
| Petrie, R. A. | Bismarck |
| Philips, Alois | Strasburg |
| Pierce, C. V. | Amenia |
| Pierce, Gladys | Bismarck |
| Plummer, Ida | Grand Forks |
| Porter, Ward H. | McVile |
| Prather, E. O. | Wahpeton |
| Prindeville, Helen | Grand Forks |
| Procter, Olive | Bismarck |
| Polson, Vera | Underwood |
| Portman, Frances C. | Valley City |
| Quinn, Margaret | Mahdan |
| Radcliffe, Grace E. | Devils Lake |
| Randlett, G. W. | Agricultural College |
| Rawley, Luella | Manoken |
| Rawlins, Cora M. | Valley City |
| Reper, Fred J. | Dickey |

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|--------------------------|--------------|
| Rhinehart, Alice | Max |
| Rice, Bessie E. | Burnstad |
| Riedell, Alice B. | Granville |
| Riley, May | Brittin |
| Risto, Lillian | Wahpeton |
| Roach, Ellen M. | New Rockford |
| Robertson, E. P. | Grand Forks |
| Robertson, Ellen M. | Bathgate |
| Root, C. C. | Bismarck |
| Root, Mrs. C. C. | Bismarck |
| Ross, A. E. | Wilton |
| Reudiger, G. F. | University |
| Rupp, Olga | Baldwin |
| Russ, E. F. | Steele |
| Ryan, Florence | Grand Forks |
| Ryan, Maud T. | Fessenden |
| Rygh, K. A. | Brinsmade |
| Sakariasson, Annie | Mandan |
| Sampson, E. L. | Milnor |
| Saunders, Cora | Surry |
| Sanderson, Laura | LaMoure |
| Sauvain, Nelson | Casselton |
| Savage, Mrs. Kate | Braddock |
| Savage, Sarah J. | Grand Forks |
| Saxvik, H. I. | Bowman |
| Scanlan, John | Sterling |
| Scanlan, Mary | Sterling |
| Schofeld, Lillian | Taylor |
| Scotton, John | Wilton |
| Schiess, Angelina | Ypsilanti |
| Scherlie, Viggo | Crary |
| Schlangen, Eva | Winona |
| Schmidt, C. C. | University |
| Schrader, F. A. | Devils Lake |
| Schroeder, J. W. | Jackle |
| Schroeder, P. R. | Driscoll |
| Schuler, Mabel | Wahpeton |
| Seiple, Lucy B. | Rugby |
| Selden, C. W. | Dickinson |
| Selden, F. H. | Valley City |
| Selden, Mrs. F. H. | Valley City |
| Sereltz, Elsie | Braddock |
| Shehy, Katherine | Napoleon |
| Shennum, Annie | Bismarck |
| Sheridan, Lizzie | Hillsboro |
| Sherry, E. M. | Rollo |
| Sherwood, Ruth B. | Westfield |
| Shirk, J. B. | Hurdsfield |
| Sigurdson, S. B. | Driscoll |

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| Simmons, Margaret | Mandan |
| Simpson, Mary | Edgley |
| Severts, Katrine | Marshall |
| Severts, Petra | Marshall |
| Sheakley, S. H. ....378 Wabash Ave., Chicago | |
| Skinner, Gertrude | Grand Forks |
| Skrivseth, B. O. | Lakota |
| Slater, Anna | Menoken |
| Slaton, H. G. | Wahpeton |
| Sleeper, Alice | Wahpeton |
| Sloan, Ora | St. Anthony |
| Sloan, Regina | St. Anthony |
| Smith, A. W. | Bottineau |
| Smith, Edwin | Bentley |
| Smith, Fred E. | Wahpeton |
| Smith, Mrs. F. E. | Wahpeton |
| Smith, Grace | Burnstad |
| Smith, Jessie L. | Grand Forks |
| Smith, Maude | Burnstad |
| Sorenson, Mamie | Cando |
| Sparks, May | Westfield |
| Spence, Effie | Mandan |
| Squires, Vernon P. | University |
| Staehnke, Mrs. R. | Mandan |
| Stafford, Agnes | Tower City |
| Stanley, Chas. P. ....Lock Box 262, Minneapolis | |
| Stanley, Elizabeth | Wahpeton |
| Stark, Mary | Mandan |
| Stearns, Wallace N. | University |
| Steake, Josephine | Mott |
| Stebbins, W. C. | Grand Forks |
| Steen, Lulu | Denhoff |
| Stegenga, D. M. | Ellendale |
| Stenson, Ella | Underwood |
| Stewart, Bertha | Washburn |
| Stewart, Caroline P. | Napoleon |
| Stevens, Mrs. J. McNaughton | Towner |
| Stickney, Irene | Mandan |
| Stiles, Alberta | Grand Forks |
| Stockwell, W. L. | Bismarck |
| Stockwell, Mrs. W. L. | Bismarck |
| Stolicker, C. C. | Drayton |
| Stratton, F. E. | Fargo |
| Straw, Nellie | Edgeley |
| Struble, Clara | Grand Forks |
| Stubbs, Maude | Braddock |
| Sullivan, Alice J. | Burnstad |
| Summerville, Irene | Moffatt |
| Sutton, M. D. | Oakes |

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| Tandberg, J. P. | Driscoll |
| Tanner, Jessie | Moffit |
| Tatem, Martha P. | Williston |
| Twamley, Edna M. | Grand Forks |
| Taylor, A. H. | University |
| Taylor, A. V. | Wahpeton |
| Taylor, E. J. | Bismarck |
| Taylor, F. B. | Jamestown |
| Teachout, Ruby | Glenco |
| Templeton, Bertha | Grand Forks |
| Tewell, H. A. | Cando |
| Theison, Elnora | |
| Thompson, Florence | Wilton |
| Thompson, Margaret | Mandan |
| Thomas, Geo. S. | University |
| Thompson, N. H. | Mayville |
| Thordarson, F. | Mayville |
| Thorson, Andrew | Hatton |
| Thorston, Clara | Trygg |
| Thrams, Ida | Bismarck |
| Tobisher, Inez | |
| Toepke, Elizabeth | Judson |
| Tompkins, E. R. | Grand Forks |
| Tormey, M. J. | Aberdeen |
| Torr, Mary Ida | Upham |
| Tounsand, C. L. | Grand Forks |
| Travis, Clyde R. | Mayville |
| Tripp, Jas. W. | Ing |
| Trog, Gertrude | Baldwin |
| Ulve, Henry | Forman |
| Vigness, C. L. | Bismarck |
| Vold, C. B. | Englevale |
| Von Daggenhauser, Erna | Grand Forks |
| Waldron, C. B. | Agricultural College |
| Wallace, B. A. | Valley City |
| Wambheim, Guri | Hillsboro |
| Wanner, Fred | Jamestown |
| Warren, E. G. | Minot |
| Watson, Lake G. | Mayville |
| Wessberg, Hannah | Bismarck |
| Westergaard, H. W. | Esmond |
| Weeks, A. D. | Agricultural College |
| Weeks, Wm. | Mott |
| Welsh, Amy L. | Grand Forks |
| Willemar, M. D. | Litchville |
| Welman, Jennie | Belfield |
| Wells, B. B. | Grafton |
| Wells, Elsie | Ft. Rice |

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|--------------------------|----------------------|
| Wells, Frances | Grand Forks |
| Wells, Jayne | Linton |
| Whipple, Edith | Wahpeton |
| Whisler, O. B. | Sanders |
| White, Anna V. | Bismarck |
| White, Lena V. | Wimbledon |
| Whitley, Katherine | Grand Forks |
| Whitmore, Carrie | Emerson |
| Whitney, F. L. | Grafton |
| Wigger, W. F. | Wahpeton |
| Wilbur, Ruth | Ross |
| Wiley, Mrs. Hilda | St. Anthony |
| Wiley, Mrs. L. D. | St. Anthony |
| Wilkinson, Maude | Mandan |
| Willard, D. E. | St. Paul Minn. |
| Williams, Alice | Wilton |
| Williams, Jessie | Ong |
| Williard, Maude | Melville |
| Willis, O. E. | Moyersville |
| Willson, Enid | Strain |
| Willoughby, Care | Mott |
| Willoughby, Lynn | Mott |
| Wilson, Mrs. Anna | Wilton |
| Wilson, Jane B. | Grand Forks |
| Wilson, Lucile | Driscoll |
| Wimberly, F. W. | Jamestown |
| Winter, Clarence | Bismarck |
| Wolff, Clara | Grand Forks |
| Wolfe, S. Henry | Minot |
| Woodard, Calista | Sweet Brier |
| Worst, J. H. | Agricultural College |
| Yeates, W. E. | Frances |

OFFICIAL PROGRAM AND ANNOUNCEMENTS

FOR THE TWENTY-FOURTH ANNUAL MEETING OF THE NORTH
DAKOTA EDUCATIONAL ASSOCIATION.

BISMARCK, NORTH DAKOTA, OCTOBER 18 TO 21, 1910.

GENERAL ASSOCIATION.

OFFICERS

President—*Fred E. Smith, Wahpeton.*

First Vice President—*Minnie F. Nielson, Valley City.*

Second Vice President—*Eula F. Miller, Fargo.*

Secretary—*Clyde R. Travis, Mayville.*

Treasurer—*C. E. Ellithorpe, Williston.*

PROGRAM

Wednesday, October 19, 2 o'clock, P. M.

Prayer

Music

President's Address—*Fred E. Smith, Wahpeton.*

Address—*Hon. W. L. Stockwell, Bismarck.*

Educational Progress of the Year—*Prof. E. F. Ladd, Agricultural College.*

Business.

Wednesday, October 19, 8 o'clock, P. M.

Lecture: "A Mediterranean Cruise."

Reverend C. W. Harris, Bismarck.

Thursday, October 20, 2 o'clock, P. M.

Prayer

Music

Business

Lecture—"A Neglected Factor."

Dr. John W. Cook, DeKalb, Ill.

General Theme: "The School's Relation to Public Health."

(Addresses limited to twenty minutes each)

Address—"The Need and Value of Medical Inspection of the School Children."

Dr. G. F. Ruediger, State University.

Address—"The Place of Physical Education in Our Public Schools."

Mrs. Una B. Herrick, Valley City

Address—"Schoolhouse Construction and Sanitation and their Effect upon the Health of the Children."

W. A. Godward, Devils Lake.

Address—"The Playground as a Factor in Health and Education."

Minnie F. Nielson, Valley City.

Thursday, October 20, 8 o'clock, P. M.

Lecture—"Tendencies in Modern Education."

Dr. John W. Cook, DeKalb, Ill.

Friday, October 21, 2 o'clock, P. M.

Prayer

Music

General Theme: The Duty of the Schools in the Moral Education of the Children."

(Addresses are limited to thirty minutes each)

Address—"The Duty of the Schools Toward Moral Prophylaxis."

Dr. Fannie D. Quain, Bismarck.

Address—"Shall We Emphasize a Course in Moral Training?"

P. S. Berg, Dickinson.

Address—"The Influence of Music and Art as Moral Forces."

Edith E. Brant, Mayville.

Business

Adjournment

HIGHER AND PROFESSIONAL EDUCATION.

OFFICERS

President—*M. A. Brannon, State University.*

Vice President—*A. D. Weeks, Agricultural College.*

Secretary—*P. G. Knowlton, Fargo College.*

PROGRAM

Thursday, Oct. 20, 9 o'clock, A. M.

President's Address—"The New Era and the Old Education."

M. A. Brannon, State University.

"What Has Been the Influence of Higher Institutions of Learning upon the Development of Vocational Education?"

Paper—*President J. H. Worst, Agricultural College.*

Discussion—*Charlton Andrews, Valley City.*

"How Enrich the Student Social Life."

Paper—*President G. A. McFarland, Valley City.*

Discussion—*Dr. E. P. Robertson, Grand Forks.*

"How Can the Subject Matter of Higher Education be Better Adapted to Practical Life?"

Paper—*President W. M. Kern, Ellendale.*

Discussion—*F. M. Gillette, State University.*

"Some Current College Problems."

Paper—*Vernon P. Squires, State University.*

Discussion—*President T. A. Hillyer, Mayville.*

"The Place of Ethical Culture in Higher Education."

Paper—*President B. H. Kroeze, Jamestown.*

Discussion—*President C. C. Creegan, Fargo.*

Business

SECONDARY EDUCATION.

OFFICERS

President—*S. Henry Wolfe, Minot.*

Vice President—*H. A. Tewell, Cando.*

Secretary—*Franklin Thordarson, Mayville.*

PROGRAM

Wednesday, October 17, 9:30 o'clock, A. M.

General Topic: "What are our High Schools Doing and What Should They Do Toward Efficiency in:

1. The Study of Agriculture

A. B. Hess, Larimore.

2. Manual Training and Domestic Science

E. R. Tompkins, Grand Forks.

3. Commercial Subjects

Nelson Sauvain, Casselton.

4. Physical Training

Aaron Heyward, Park River.

5. Moral Training

E. R. Edwards, Minto.

6. Hygiene and Sanitation

J. F. McLain, Towner.

*Business

Friday, October 21, 9:30 o'clock, A. M.

The High School—"Its Weaknesses and Suggested Modifications."

Geo. W. Hanna, Valley City.

"Are There Subjects in the List of Constants and Electives Which Should be Dropped to Give Place to Others of More Immediate Value?"

A. G. Crane, Jamestown.

"What is the Function of the High School in the Preparation of Teachers for the Common Schools?"

C. E. Ellithorpe, Williston.

"The Abuse of Inter-High School Athletics and Its Remedy."

R. B. Murphy, Tower City.

"What Should be the Common Standards of Culture in High Schools?"

W. A. Godward, Devils Lake.

Discussions

Business

ELEMENTARY EDUCATION.

OFFICERS

President—*C. C. Gray, Grafton.*

Vice President—*B. A. Wallace, Hillsboro.*

Secretary—*Miss Eula Miller, Fargo.*

PROGRAM

Wednesday, October 19, 9:30 o'clock, A. M.

"Retardation in the Grades and How to Diminish It."

Paper—*W. E. Hoover, Fargo.*

Discussion—*E. R. Edwards, Minto.*

The Personal Equation in Teaching.

Paper—*N. C. Macdonald, Mandan.*

Discussion

Moral Instruction in the Grades.

Paper—*C. C. Schmidt, State University.*

Discussion

Friday, October 21, 9:30 o'clock, A. M.

Domestic Science Without a Special Teacher.

Paper—*Leah Gamon, Mayville.*

Discussion—*Jean Watt Donaldson, Agricultural College.*

Definite Assignments of Reading Lessons.

Paper—*E. M. Sherry, Rolla.*

Discussion—*Guri Wambheim, Hillsboro.*

The Socialization of History.

Paper—*John M. Gillette, State University.*

Discussion led by *C. M. Correll, Mayville.*

Business

SUPERINTENDENCE.

OFFICERS

President—*W. L. Stockwell, Bismarck.*
 Vice President—*Helen Prindeville, Grand Forks.*
 Secretary—*E. J. Taylor, Bismarck.*
 Member of Executive Committee—*Supt. Dalton McDonald, Towner.*

PROGRAM

Wednesday, October 19, 9:30 o'clock, A. M.

Relation of Health to Morality

Supt. Geneva M. Lovell, Dickey County.

Supt. Martha Tatem, Williston.

The Advisability of State Aid to High Schools Offering Work in Preparation for Rural School Teaching.

Supt. C. L. Vigness, Burleigh County.

Supt. F. R. Barnes, Richland County.

Report of Code Commission

Formation of Districts—*E. J. Taylor, Bismarck.*

Certification of Teachers—*Joseph Kennedy, State University.*

General Discussions

Business

Thursday, October 20, 9:30 o'clock, A. M.

State Aid for Rural Schools

Supt. E. G. Warren, Ward County.

Supt. Fred Wanner, Stutsman County.

The County Superintendent's Authority

Supt. Bessie M. Kane, Mountrail County.

The Commercial Value of Elementary Agriculture

Supt. Frederick Davis, Adams County.

Domestic Science

Miss Jessie M. Hoover, Agricultural College.

Round Table—General Discussion

Business

SCHOOL ADMINISTRATION.

OFFICERS

President—*R. S. McNish, Fairdale.*
 Secretary—*A. B. Cox, Wimbeldon.*
 Member of the Executive Committee—*J. P. Tandberg, Driscoll.*

PROGRAM

Thursday, October 20, 9:30 o'clock, A. M.

(URBAN SESSION)

President's Address—*R. S. McNish, Fairdale.*Sanitation—*Mrs. Fannie Dunn Quain, Bismarck.*Problem of Moral Discipline—*E. S. Cameron, Wahpeton.*

Urban Problems—General Discussion

Friday, October 21, 9:30 o'clock, A. M.

(RURAL SESSION)

School Laws—*E. J. Taylor, Bismarck.*Migratory Teachers—*Minnie J. Nielson, Valley City.*Equipment and Supervision—*B. A. Wallace, Hillsboro.*

Rural Problems—General Discussion.

Business

SCIENCE AND MATHEMATICS.

OFFICERS

President—*C. C. Gray, Grafton.*Vice President—*E. F. Chandler, State University.*Secretary—*Clyde R. Travis, Mayville.*

PROGRAM

Tuesday, October 18, 2 o'clock, P. M.

Discussion on the Sources of the Sun's Heat

F. A. Schrader, Devils Lake.

Teaching the Great Sources of Power in Nature

Volunteer Discussion.

Laboratory Method and Equipment in Physiography

H. E. Simpson, State University

How to Agriculturalize the Teaching of Botany in the High School and Still Retain the Essential Principles of Botany.

H. F. Bergman, Agricultural College.

Laboratory Equipment in High School Elementary Agriculture

G. W. Randlett, Agricultural College.

The Correlation of Physiography with Commercial Geography and History

W. C. Stebbins, Grand Forks.

To What Extent is the Elimination of Mathematics in the Teaching of Physics Desirable?

A. H. Taylor, State University.

Should the Metric System be Generally Taught? If so, to What Extent?

P. S. Berg, Dickinson.

(There will be time given for volunteer discussion of each of the papers on the above topics, and the next three topics are for round table discussion)

In What Respects is Science Teaching in the Schools Deficient?

The Value of the Graph in Teaching Mathematics.

The Value of Teaching Approximations.

(Papers are limited to 12 minutes each and discussions to 3 minutes.)

HISTORY, CIVICS AND SOCIAL SCIENCE.

OFFICERS

President—*R. M. Black, Wahpeton.*

Vice President—*W. B. Thomas, Jamestown.*

Secretary—*Bertha M. Palmer, Devils Lake.*

PROGRAM

Tuesday, October 18, 2 o'clock, P. M.

President's Address—*R. M. Black, Wahpeton.*

The Use of the Library in Teaching History

Florence Hill, Valley City

History Below the Seventh Grade

C. M. Correll, Mayville.

Interesting the Pupils in Local History

Minnie J. Nielson, Valley City.

A Laboratory Method of Teaching Civics

J. C. West, Webster.

Address (40 min.)—"The Food Supply of the Mandans."

O. G. Libby, State University.

Round Table—Experiences and Discussions.

a Sources in the Secondary Schools

b The Essentials of a Good Text in History

c Preliminary Training for Sociology

d Other Topics as Suggested

Business

(All papers will be open to general discussion and are limited to 15 minutes each.)

INDUSTRIAL EDUCATION.

OFFICERS

President—*W. M. Kern, Ellendale.*

Vice President—*C. A. Brocus, Minot.*

Secretary—*Nellie Farnsworth, Valley City.*

PROGRAM

Tuesday, October 18, 2 o'clock, P. M.

(Papers limited to 15 minutes, discussions to 5 minutes each.)

Industrial Education a Necessity of the Times

H. A. Tewell, Cando.

Discussion—*E. R. Edwards, Minto.*

Industrial Education in the One-Room School

H. F. Butterfield, Mayville.

Discussion—*V. A. Bird, Carrington.*

Domestic Science and Art in the Rural School

Jessie M. Hoover, Agricultural College

Discussion—*B. A. Wallace, Hillsboro.*

The Grammar Grade Course in Manual Training: What? Why?

A. E. Dunphy, Ellendale.

Discussion—*A. G. Crane, Jamestown.*

Business

MUSICAL EDUCATION.

OFFICERS

President—*Fanny C. Amidon, Valley City.*

Vice President—*Clara C. Aldahl, Valley City.*

Secretary—*Eleanor Dougherty, Geneseo.*

PROGRAM

Tuesday, October 18, 2 o'clock, P. M.

Choice of Musical Material in the Lower Grades

Rhea Runice, Cooperstown.

How to Help Monotones and Other Backward Pupils in Music

Josephine Ellingson, Jamestown.

What Should be the Qualifications for a Supervisor of Music in a System of City Schools?

W. W. George, Fargo.

Musical Appreciation in the Schools of North Dakota*Fred W. Wimberly, Jamestown.*Round Table—*Fanny C. Amidon, Valley City, Leader*(Papers limited to 20 minutes each.)

RURAL SCHOOL EDUCATION.**OFFICERS**President—*Mrs. J. McNaughton-Stevens, Bantry.*Vice President—*G. W. Randlett, Agricultural College.*Secretary—*Anna O. Gjeldstad, Velva.***PROGRAM****Tuesday, October 18, 1:30 o'clock, P. M.**

Music

Rural Work Worth While

MacNeal James, Valley City.

Discussions—(Two minutes each.)

Poem—*James W. Foley, Bismarck*Kernels—*G. W. Randlett*

Round Table—"Attendance"

*"Ten Minute Treats" by Martha Reisner, Morton County; Flora Watkins, Burleigh County; Anna O. Gjeldstad, McHenry County; Anna Inwood, Burleigh County; Mrs. Mayme Zychlinski, Morton County; and County Superintendents Kane, Tatem, Vigness and McDonald, and A. P. Hollis.***Tuesday, October 18, 8 o'clock, P. M.**

Music—Solo and Instrumental:

"For Our Maidens Sweet Flowerets of the Rural Shade"

Jessie M. Hoover, Agricultural College.

Bird Life—(Illustrating Slides to be used.)

*W. B. Bell, Agricultural College.*Business

ANNOUNCEMENTS.**ENROLLMENT**

Perhaps we cannot say that it is the duty of each teacher to identify himself with the State Association, yet such action would be to the mutual benefit of himself and education in North Dakota. Suppose you accept this as a request for your dues (\$1.00 per year) to be sent to the secretary, Clyde R. Travis, Mayville, N. Dak., within a few days. A permanent

membership is necessary if the Association is to remain a factor in the education of the state and a much increased membership is the only means of financing the Association and thus enabling it to increase its usefulness.

ASSOCIATION HEADQUARTERS

Association Headquarters will be established at some convenient place in Bismarck during the meeting. Your first duty upon arriving in attendance is to visit this place and enroll, receiving the receipt of membership and the badge. Announcement of this place will be made thru the state papers and at Bismarck.

LECTURES AND RECEPTION

The Executive Committee has succeeded in securing Dr. Andrew Gillies of Minneapolis as lecturer for Wednesday evening and Dr. John W. Cook of DeKalb, Illinois as "Educational Expert" to address the association on Thursday afternoon and evening. A reception will be tendered to the members of the association on either Wednesday or Thursday evening, by the citizens of Bismarck.

ADDRESSES SHOULD BE TYPEWRITTEN

Every address given before the association or any department thereof should be typewritten and such copy handed to the secretary immediately after the address is read. Abstracts of the discussions should be treated in the same way. Separate abstracts should be made for the press.

TIME LIMIT

Wherever a limit is imposed, the same shall be enforced. Remember that this is the only thing that the presiding officer can do, hence save yourself and him embarrassment by bringing your address within such time limit.

REUNIONS

There will be reunions of members from the different educational institutions and special announcement of each should be handed to the secretary of the general association to be read at the general session on Wednesday afternoon.

HOTELS AND RESTAURANTS

The Northwest, \$2.25 to \$3.00 per day; The Grand Pacific, \$2.25 to \$3.00; The Soo, \$1.25 to \$2.50; The Palace, \$1.25. There are several excellent private boarding and rooming houses, among them the Dunraven, the Colonnade and the Park Hotel. Homan's and Coonan's cafes are first class in every way.

PLACES OF MEETING.

GENERAL ASSOCIATION

Hall of House of Representatives, Capitol

DEPARTMENTS

HIGHER AND PROFESSIONAL EDUCATION

Presbyterian Church, Lecture Room

SECONDARY EDUCATION

Presbyterian Church, Lecture Room

ELEMENTARY EDUCATION

Presbyterian Church

SUPERINTENDENCE

Commercial Club Rooms

SCHOOL ADMINISTRATION

Court House

SCIENCE AND MATHEMATICS

Court House

INDUSTRIAL EDUCATION

Commercial Club Rooms

RURAL SCHOOL

House Chamber, Capitol

HISTORY, CIVICS AND SOCIAL SCIENCE

Presbyterian Church, Lecture Room

MUSICAL EDUCATION

Presbyterian Church

LECTURES AND RECEPTION

Presbyterian Church, Lecture Room

MINUTES

OF THE MEETING OF THE EXECUTIVE COMMITTEE

HELD IN FARGO, APRIL 1, 1910.

The executive committee of the N. D. E. A. met in the office of County Superintendent Davis of Cass County at 2 o'clock P. M. on April 1, 1910 with F. E. Smith, M. A. Brannon, Dalton McDonald, J. P. Tanberg, W. L. Stockwell and Clyde R. Travis present.

The question of the date of the fall meeting was considered. It was moved and seconded that the fixing of the date be left with the president and secretary of the association acting with the State Historical Society provided that it is possible to secure former President Roosevelt as lecturer; otherwise that the date be fixed for October 19, 20, and 21 (Wed., Thurs., and Friday) 1910. Motion put and carried.

Moved that it be the sense of the committee that we endeavor to secure, in the event of our being unable to secure Mr. Roosevelt, an inspirational speaker of national reputation and also an "Educational Expert."

The motion prevailed. In this connection the advisability of our co-operating with the state associations of Minn., Wis., S. Dak., and Iowa in the matter of securing talent for lectures was discussed, and the president and the secretary of the association were requested to do so.

Moved that the committee on speakers consisting of Pres. F. E. Smith and W. L. Stockwell, be authorized to spend not more than \$400 for these lecturers. Motion carried.

By motion the chair was directed to appoint a Local Committee of five to take charge of all local arrangements. The following persons were appointed: F. L. Conklin, Chairman; W. L. Stockwell, Mrs. Fannie Dunn Quain, Supt. Burnett, and C. L. Vigness.

The matter of increased membership was discussed for some time and various plans for increasing the membership were presented. It was deemed advisable to bring the matter of membership before the various sectional teachers' meeting and Supt. Stockwell was requested to present the matter to the Tri-County Association, Mr. McDonald to the North Western, and Mr. Smith to the South-Eastern. Supt. Stockwell was further requested to circularize the County and City Superintendents regarding this matter and Secretary Travis was directed to write the different state and private educational institutions.

By motion it was decided that the form of the program for this year shall be a booklet.

Moved that "maroon" be adopted as the color for the Active Membership badge, and that the badge for this year consist of a medallion and ribbon like that of last year with the photo of the statue of Sakakawea taking the place of the photograph of Pres. Merrifield. After a discussion of the advisability of the organization of new departments, the following resolution was passed:

Be it resolved, that it is the sense of this committee that no further departments of this association shall be organized and that steps be taken looking towards a consolidation of some of the present departments.

This resolution was passed by a unanimous vote.

CONSIDERATION OF THE PROGRAM FOR THE GENERAL SESSIONS

Moved that the persons responsible for the programs for the different departments be informed that the material for these programs must be in the hands of the Association secretary by June the first. Carried.

Moved that the first general program be,

President's AddressSupt. F. E. Smith

AddressState Supt. W. L. Stockwell

Address—Educational Progress of the Year.

Business

The motion prevailed.

Moved that the program for the second session be,

Paper—Physical Education

Paper—Medical Inspection in the Schools

Paper—Creation of Proper Attitude Toward Public Health

Paper—Playground Movement

Business

Carried

It was decided by vote that the programs of these sections not entitled to membership on the executive committee be limited to one session each and that this session be placed on the afternoon or evening of the day preceding the first general session.

The tentative programs submitted were approved. Not all the departments submitted these, however.

By motion it was decided that this committee shall meet in Grand Forks at the time of the Spring meeting of the High School Superintendents and that all matters relative to the program not then settled shall be determined upon at this meeting.

A motion to adjourn was made and carried, and the meeting was adjourned.

Minutes of the meeting of the Executive Committee held on the 20th day of May, 1910, at Grand Forks, North Dakota.

The meeting was called to order at 2 o'clock P. M. in room 308 of Hotel Dacotah, by the president, Fred E. Smith.

The matter of lecturers for the meeting was discussed and several names of possibilities were suggested. The matter of selecting the lecturers was left with the President of the association together with the secretary and the Superintendent of Public Instruction.

In response to a request from Mrs. Stevens, president of the Rural Section, it was moved and carried that this section be granted the privilege of holding both an afternoon and an evening session on Tuesday the 18th of October.

There was considerable discussion of various matters pertaining to

the success of the coming meeting and the program for all sessions of the general association was decided upon.

By motion the meeting was adjourned.

CLYDE R. TRAVIS,
Secretary N. D. E. A.

MINUTES

OF THE GENERAL ASSOCIATION

WEDNESDAY AFTERNOON, OCTOBER 19, 1910.

The meeting was called to order at 2 o'clock P. M., by Mrs. Lovell, second vice-president for 1909. Prayer was offered by the Reverend Mr. Harris of Bismarck, a violin solo by Donald McDonald, a selection by the Bismarck High School Trio and a selection upon the Iolian Harp by Mr. Smith.

After the introduction of President elect, Mr. Fred E. Smith, the official program for the afternoon was rendered.

The following business was transacted:

Announcements were made of the several events of the afternoon and evening.

Supt. N. C. Macdonald announced that at a later session there would be presented an amendment to Article III, Section 1 and another to Section 2 of Article V of the constitution, and the proposed amendments were read.

President Smith appointed the committees as follows:

Committee on Resolutions, W. M. Kern, Miss Minnie J. Nielson, Mr. Haig, Mr. Sauvain, and Mr. P. S. Berg.

Committee on Necrology, President G. A. McFarland, W. E. Hoover and Joseph E. Kennedy.

Committee on Audit (To act provided that the committee elected last year should not be present), Dalton MacDonald, C. C. Schmidt and Richard Heyward.

The association elected, by ballot, Vernon Squires and W. A. Godward as members of the nominating committee after which the association adjourned.

WEDNESDAY EVENING, OCTOBER 19, 1910.

The session was called to order by the president at 8 o'clock P. M. The music consisted of Piano Solo by Miss Myers and selections by a Ladies Quartette, both of whom were called back by encore. The association having received word that the lecturer for the evening could not be present, the executive committee secured Mr. Harris, pastor of the Presbyterian Church, to deliver his lecture "A Mediterranean Cruise."

THURSDAY AFTERNOON, OCTOBER 20, 1910.

The association was called to order at 2:15 P. M. and led in prayer by Reverend Mr. Shute. This was followed by a piano solo by Miss Harmon and a vocal solo by Mrs. La Rose. By motion, the order of business was changed so as to receive the report of the nominating committee and to consider the next place of meeting immediately after the close of the other

features of the program. Dr. Cook then gave his lecture at the close of which the audience joined in singing "The Battle Hymn of the Republic."

At this time Superintendent Stockwell was called from the room by some urgent business and Superintendent Crane moved that a committee of seven (the president of the association as one member) be appointed to purchase thru voluntary subscription and have inscribed, a suitable memorial to be presented to Superintendent Stockwell at the general session on Friday afternoon. Carried.

The committee appointed was: F. E. Smith, President, N. C. Macdonald, C. C. Schmidt, Mrs. Mattie M. Davis, Miss Edith Brant, A. G. Crane, and P. S. Berg.

After a few minutes intermission, the discussion of the general theme was carried out as per program.

The regular matters of business were then regularly disposed of.

The Committee on Nominations reported as follows:

For President—Superintendent N. C. MacDonald of Mandan.

For 1st Vice President—Co. Supt. Martha M. Tatem, Williston.

For 2nd Vice President—Miss Fannie C. Amidon, Valley City Normal.

For Secretary—Clyde R. Travis, Mayville Normal.

For Treasurer—Co. Supt. Dalton McDonald, Towner."

"We further report that we suggest relieving Treasurer Ellithorpe of his duties as he has earnestly requested the same to be done."

(Signed by the Committee).

By motion the report was adopted and the above named officers were declared duly elected. J. M. Gillette, W. E. Hoover, and Dalton McDonald were by vote elected as members of the Finance Committee.

Superintendent Hoover of Fargo then read invitations from the City of Fargo, Mayor Lovell, The Commercial Club of Fargo and Fargo Board of Education inviting the Association to hold its next meeting in the City of Fargo, and the invitation was accepted by a unanimous vote.

The session was adjourned by motion.

THURSDAY EVENING, 8 O'CLOCK P. M.

The session was called to order by the president at eight o'clock and Miss Harmon rendered a piano solo to the delight of all. This was followed by an equally pleasing vocal solo by Miss Marcellus, after which Dr. Cook was introduced and delivered a lecture upon the subject announced in the program. At the close of the lecture announcements were made and the assembly adjourned by motion.

FRIDAY AFTERNOON, OCTOBER 21, 1910.

The session was called at 2 o'clock p. m. by the president of the association and led in prayer by the Rev. Mr. Newcomb. Mr. Carl Peterson rendered a pleasing piano solo and the High School Glee Club greatly pleased the audience with their selections. The program announced was then rendered. After the close of the discussions, the committee appointed at the Thursday afternoon session reported thru Mrs. Davis who, in an appro-

priate presentation speech, presented Mr. and Mrs. Stockwell with a chest of silver as a token of esteem in which the County Superintendents hold Mr. and Mrs. Stockwell and the educational work of the former, and with an elegantly bound booklet in which is to be found a statement of the estimate of the members of the Association of the work accomplished by Superintendent Stockwell together with the signatures of the membership of said educational association, and thru President Smith who neatly expressed the wishes of the association and presented a handsome gold watch fittingly engraved.

President Smith read the resignation of Dalton McDonald as Treasurer. The resignation was accepted by vote.

Nominations for treasurer were then declared in order and the names of Miss Helen Prindeville and Mr. Richard Heyward were presented. Miss Prindeville withdrew her name. The nominations were closed by vote and Mr. Heyward was elected treasurer unanimously.

The committee on Necrology presented its report which was adopted by vote.

Moved and carried that a copy of the report on Necrology be sent to the family of each of the departed educators.

Uncle Will was then called to the platform and asked to give a few reminiscences, occupying ten or fifteen minutes only. This the generous "Uncle" did to the pleasure of all.

Moved that the balance of \$50.00 be paid Dr. Forbush for his services as lecturer at the sessions held in Minot. Motion carried with but one dissenting vote.

The committee on resolutions reported at this time and, after being amended by the addition of one resolution, the report as amended was adopted.

The report of the auditing committee was received and accepted.

As this report showed that Superintendent Kelly of Grand Forks had sent in money in excess of the memberships sent by him, it was moved and carried that the excess be refunded.

Mr. N. C. MacDonald, in accordance with his previous notice, presented the proposed amendments which were adopted by the necessary vote and declared a part of the constitution.

Moved that the President in consultation with the President elect, appoint a legislative committee of seven to represent this association before the legislature. Carried.

Moved that Miss Brant lead the assembly in "Blessed Be the Tie That Binds" and that the general association be then adjourned. Motion prevailed.

CLYDE R. TRAVIS,
Secretary of the North Dakota
Educational Association.

REPORT OF THE AUDITING COMMITTEE.

The auditing committee of the N. D. Educational Association, after having examined the accounts and moneys of the treasurer of the association, beg leave to submit the following report:

RECEIPTS.

| | |
|---|-----------|
| Cash on hand, last auditor's report | \$ 147.25 |
| Received from Minot Commercial Club | 50.00 |
| Dues for 1908 | 1.00 |
| Dues for 1909 | 60.00 |
| Dues for 1910 | 578.00 |
| Dues for 1911 | 44.00 |

| | |
|---------------------------|-----------|
| Total cash received | \$ 880.25 |
|---------------------------|-----------|

DISBURSEMENTS.

| | |
|--|----------|
| N. Dak. E. A. headquarters, 1909 | \$ 50.00 |
| Forebush lectures, 1909 | 150.00 |

| | |
|-------------|-----------|
| Total | \$ 200.00 |
|-------------|-----------|

| | |
|-------------------------------------|-----------|
| Balance on hand Oct. 21, 1910 | \$ 680.25 |
|-------------------------------------|-----------|

BILLS PAYABLE.

| | |
|---|----------|
| Programs for 1910, including shippage, W. G. Crocker .. | \$ 59.45 |
|---|----------|

EXPENSES OF EXECUTIVE COMMITTEE, 1910.

| | |
|-----------------------|----------|
| F. E. Smith | \$ 10.60 |
| Dalton McDonald | 12.00 |
| M. A. Brannon | 1.75 |
| C. R. Travis | 10.10 |
| J. P. Tandberg | 20.85 |

EXPENSES OF COMMITTEE OF SEVEN.

| | |
|--|---------|
| C. C. Schmidt | \$ 6.50 |
| W. A. Godward | 9.00 |
| Treasurer's expenses | 26.75 |
| Secretary's salary | 50.00 |
| Secretary's office and supply expenses | 28.28 |
| N. Dak. E. A. headquarters for 1910 | 11.00 |

| | |
|-------------|-----------|
| Total | \$ 246.28 |
|-------------|-----------|

October 21st, 1910, 10:50 a. m.

JOHN M. GILLETTE,
DALTON McDONALD,
W. E. HOOVER.

TREASURER'S REPORT.

Nov. 25, 1910.

RECEIPTS.

| | |
|--|----------|
| Balance as per last annual report..... | \$ 17.60 |
| Dues received from secretary C. R. Travis..... | 455.00 |
| Dues collected by treasurer..... | 228.00 |
| Dues received by treasurer after audit..... | 5.00 |

Total receipts\$ 705.60

DISBURSEMENTS.

| | |
|--|---------|
| D. E. Willard, expense committee of seven..... | \$ 5.80 |
| B. A. Wallace, expense committee of seven..... | 1.45 |
| John W. Cook, lecture..... | 150.00 |
| C. R. Travis, salary and office expenses of sec'y..... | 120.33 |
| C. Ellithorpe, expenses treasurer..... | 26.75 |
| C. C. Schmidt, expense committee of seven..... | 6.50 |
| M. A. Brannon, expense executive committee..... | 1.75 |
| F. E. Smith, expense executive committee..... | 10.60 |
| W. G. Crocker, programs..... | 59.45 |
| Northwest Hotel, expenses Dr. Cook..... | 2.75 |
| Mrs. J. M. Stevens, expenses..... | 16.00 |
| Rev. Harris, lecture..... | 35.00 |
| C. Ellithorpe, balance to Dr. Forbush..... | 50.00 |
| J. Nelson Kelley, refund overpaid dues..... | 45.00 |
| W. A. Godward, expense committee of seven..... | 9.00 |
| Dalton McDonald, expense executive committee..... | 12.00 |

Total disbursements.....\$ 552.38

Cash on hand 153.22

Total\$ 705.60

Respectfully submitted,
C. ELLITHORPE, Treasurer

RESOLUTIONS

BISMARCK, NORTH DAKOTA, OCTOBER 21st., 1910.

Be it Resolved by the Teachers of the State of North Dakota in Convention Assembled:

First. That this association desires to express its cordial appreciation of the gracious and hospitable manner in which the City of Bismarck, through its citizens and through the Bismarck Commercial Club, has welcomed and entertained the organization during its twenty-fourth annual session;

Second. Believing that the rural school is the most important factor in the education of our people, and believing that no other educational problem

is, in any sense, commensurate with that relating to the rural school, we recommend that the legislature of the state enact a law granting such state aid to our rural schools as shall serve to render them more efficient in training our boys and girls for the complex duties of life.

Third. We believe that the interests of the children of the state will be better served if the state tuition fund shall be apportioned among the schools of the state upon the basis of attendance, and we recommend that our legislature propose to the people of our state an amendment to our constitution looking towards the distribution of such funds upon this basis.

Fourth. The Association recognizes and commends the valuable work in which the Committee of Seven is engaged and recommends that said committee be continued in force another year;

Fifth. That we strongly favor effective medical inspection in our schools.

Sixth. That we favor the amendment to our state constitution, providing for the establishment of a Normal school at Minot.

Seventh. Believing that the tendency to lengthen the period within which the Association shall remain in session during its annual meeting must eventually result in harm to the organization, the Association hereby instructs its executive committee to arrange for a program extending over not more than three days.

Eighth. The Association commends the work of the Library Commission in preparing traveling libraries and farmers' libraries for rural communities, appreciating especially the effort to furnish books that shall be helpful in country schools, and recommends the extension of field work among library stations as an important educational factor in the educational system of the state.

Ninth. This Association commends and endorses the able and progressive administration of our worthy State Superintendent, W. L. Stockwell. We recognize his effective service in the cause of elementary, secondary and higher education in our state. We wish to assure him of our deep and abiding faith in his personal integrity and high motives, and to convey to him an expression of sincere friendship and high personal regard.

(Signed)

W. M. KERN
MINNIE J. NIELSON
J. A. HAIG
P. S. BERG
NELSON SAUVAIN

Resolution amending the report of the Committee on Resolutions.

Ninth. We urge upon the educators of the state, especially the institutions of higher learning, that the problems of social hygiene be given careful study and that steps be taken to deal with this subject practically in the schools at an early date.

NECROLOGICAL REPORT

ALMOND L. WOODS

He was of New England parentage, born June 21, 1856 at Troy, Maine, where he grew to young manhood. His early education was pursued in the public schools, from which he entered Maine Central Institute for his college preparation, graduating in 1876. He entered Bates College in 1876 where he graduated with the B. A. degree in 1880 and subsequently with the degree of Master of Arts.

He was admirably equipped for teaching and administration both by natural qualifications and by education; and his career in the educational field dates from his sixteenth year to the time of his death, a period of thirty-eight years. His teaching experience began in the common schools of Maine, as a means of supplying funds for his preparatory and college courses. After graduation from Bates College, he was in charge of the Yarmouth, Massachusetts, schools for one year. In 1881 he was appointed principal of schools at Harwich, Massachusetts, where he remained until 1887, when he came to Grafton in the then territory of Dakota as superintendent of schools. He served in this capacity with marked distinction for four years, when he was elected to the superintendency of the schools of Walsh county. As county superintendent he was one of the directive educational forces of the state. After sixteen years, the influence of his work in the common schools of Walsh county is still felt. From 1901 to 1903 he was Deputy State Superintendent of Public Instruction and was a candidate for nomination for State Superintendent of Public Instruction in the June primary election in 1910.

Besides his educational work, Mr. Woods did a great deal of editorial and other writing. He founded the Walsh County Record over twenty years ago. In 1889 he founded the Common School, which he published for over twelve years. He wrote and published Wood's Civil Government of North Dakota, which is used extensively in the common schools throughout the state. His death occurred at his home in Grand Forks, August 21, 1910.

M. A. SHIRLEY

Hon. M. A. Shirley of Aneta died at his home, September 4th, 1910. Mr. Shirley was a charter member of the North Dakota Educational Association, having been one of a few men who met in Grand Forks in August, 1887 and took steps to organize an educational association for North Dakota, the one which had existed up to 1885 having disbanded or discontinued. Mr. Shirley, who was then County Superintendent of Schools for Grand Forks County, was present at the first meeting in Fargo, December 1887, and took an active part in the organization of the new association and in the discussions.

After his period of service as county superintendent, he entered the practice of law and was a practicing attorney at Aneta up to the time of his death. He was, at the time of his death, states attorney for Nelson County. He was a member of the Legislature in 1907.

Mr. Shirley was an able man, kindly to all, and of high ideals and noble purpose. "None knew him but to love him, none named him but to praise."

GEORGE W. COLBORN

George W. Colborn died at his home in Grand Forks, of heart failure, September 30, 1910.

Mr. Colborn was known to most of the school men of the state. He was for a time principal of the Park River and Crystal schools, and for some years, conducted institutes and lectured thruout the state. For several years past, he has resided in Grand Forks and was engaged in the sale of school furniture.

Mr. Colborn was always interested in educational problems, having been a teacher from an early age, and was an active member of the North Dakota Educational Association. He leaves a widow and two sons, Dr. L. P. and Mr. George Colborn, to mourn his loss.

JOHN OGDEN

John Ogden, a veteran of the Civil War, a veteran and a leader in public Education for more than half a century passed to his reward at Seattle, Washington, July 22, 1910, full of years, and of honors as a teacher, an author of Educational books, conductor of teachers institutes, president of Normal schools and Superintendent of Public Instruction.

Mr. Ogden was a native of Ohio, born in 1824, received a common school education in that state, taught in his school and wrote Science of Education and later Art of Teaching with the exception of David Paye's book about the first attempt in this country at Educational Authorship. When the State Normal School at Winona, Minnesota was organized he became the first president, a position he resigned to enter the Civil War. He served throughout the war. Most of the time as Captain. Was a prisoner of war at Andersonville, escaped and was recaptured by blood hounds, was exchanged and again entered the service.

At the close of the war he interested himself in the Education of the freedmen, was connected with the movement to found Fisk university and organized and started on the road the original Fisk Jubilee Singus. For years he devoted himself to the general work of writing and lecturing upon Educational themes.

About 1887 he came to McIntosh County, N. D. to file upon land near Ashly. The people of Milnor were organizing the Territorial Normal at that point and he was made the first President and served in that capacity thruout the greater of that Experiment. During this time he was frequently in the service of the territory and State as a conductor of institutes. He was present at Fargo in 1887 and helped organize this association and gave an address at its first meeting, and was chosen as its first President.

In 1891 he was elected to fill the second term of the office of Superintendent of public institution and had much influence in hoping to early educational legislation of the young State taking particular interest in the means for the training of teachers, giving particular attention to the laws

organizing our State Normal schools. The remainder of his life was spent at Minneapolis and Seattle occasionally accepting an appointment in summer school and institute. His closing years have been closed by the infirmities of age, and poverty, the usual reward of the true teacher.

He left an impression on the lives of thousands of teachers and young people and made a noble contribution to the progress of Education; for his life was always guided by the Pestalozzian ideal "Everything for others, nothing for self." Peace to his ashes and long life to his noble influence.

MARCELLUS W. BARNES

BY G. W. HANNA.

Valley City has laid to rest one of its rare men in the person of Marcellus W. Barnes. Up to the time of his death he has given his working life to our community and in such a way as to bring him in contact with more of Barnes county's people, perhaps, than any other one man; and a life of such character cannot be snatched from its possibilities in the very midst of its successes without much profound regret and sore grief. Many there are who must regard this loss as personal. Good people generally will mourn the loss of an ally.

Mr. Barnes was a man of many virtues and no vices. He was inherently good, as simple in manner as a child, approachable by a little girl or the humblest citizen, overflowing with geniality, unselfish, unassertive, unostentatious in all that he did, enthusiastic and courageous in attacking hard problems, one who quietly got results but could never stand the glare of the lime-lights, one who accomplished things and was satisfied with this even though another assumed the honor—these are a few of his characteristics.

In friendship he was like a brother. All those fine features of character flowed out to his intimate friends, and those same deep interests that he held for his friends made him love his ideals, the good mankind. His circle of warm friends in North Dakota is large and very real. His fine regard for friendship reached the highest type of pure love and devotion in his home,—never too far away to communicate, never in too big a hurry to bring home a token of love.

As a citizen, I would speak of Mr. Barnes as quite the ideal. The fraternal feeling is akin to patriotism and in both Mr. Barnes was moved by unselfish motives. He was not designed for a political leader, nor was he even a good politician, but he was always loyal to his obligation as a voter and was distinctly patriotic in the wide sense of the term. In the matter of conduct he was not an exhorter, but his own conduct was as flawless, as is human, and his example and quiet influence were a power in the community.

In business Mr. Barnes was an adept. He was a veritable bundle of neatness, exactness, system and method. Whatever he handled responded to his well planned efforts, and in this respect Valley City bears many an impression of his hand. He was thrifty as a result of good business insight and excellent methods, and because of wise, but never narrow economy. He was industrious, industrious with a devotion that was one and the same as public official or private manager.

He prepared himself for school work, having received his training at Dixon, Ill. He was an instructor in the local normal for a number of years in the early days of the school and later became county superintendent of schools. He was very happy in this work and remarkably successful. He was highly regarded by the school men of the state, both for his ability and his fine character, and by them was given many important positions. His heart was in this work because he planned it as his life work, and even though he has been out of actual service his interest has never flagged and an examination of the records of the State Teachers' association will show his membership dues to be already paid for the ensuing year. He was a wonderfully successful business man, but it is as an educator that he himself would prefer to be remembered.

IDA L. OGDEN

Mrs. Ida L. Ogden for three years critic of the 3rd and 4th grades in the Model School at the State Normal School at Valley City died at Cortland, New York, July 6th, 1910.

Mrs. Ogden was born near Cortland 44 years ago, was educated in the common schools and graduated from Oswego Normal School in 1885. After teaching for a time in the various schools of the state of New York she was married and later widowed. In 1906 she returned to the Normal School at Oswego and completed the critic course having previously completed a course in Domestic Science at the American School of Household Economics, Chicago, Ill. For a time she was critic at Clark University, South Atlanta, Georgia, going from there to the critic position at the State Normal School at Valley City in 1907.

Mrs. Ogden was a devoted teacher; her life was in her work. During the last year of her work at Valley City she was a constant sufferer from the dread disease cancer. Only those very close to her and who insisted upon knowing ever found out her condition. With a fortitude that was heroic and a love for her children that was matchless, in spite of the protests of principal and associates, she continued at her work. When her work was done, June 24th, she lay down to die. Only the best medical treatment was able to get her ready for the trip to her home where she arrived about the first of July, dying six days later.

She impressed herself upon the Normal School at Valley City as a woman of untiring energy, marvellous dignity and reserve, a rare modesty and ladylike bearing, qualities which she will transmit through teachers under her criticism to other generations.

ADDRESSES GIVEN BEFORE THE GENERAL ASSEMBLY.

EDUCATIONAL PROGRESS OF THE YEAR

E. F. LADD, AGRICULTURAL COLLEGE

Mr. President and Fellow Teachers:

Advancement comes slowly. That which is permanent in our civilization has come to be so only after years of arduous toil and study and through the gradual elimination of the fallacious. We can, therefore, hope for but little progress in a year's time or of permanent growth in the period of a man's life, but as we look back and note the various milestones of progress, we take courage and press onward for the higher plane that always lies before us in the to-morrow. As we study the condition of our own state, of our people and of our schools, we note that the same uplifting force is at work which may be observed throughout the length and breadth of our land, and which is making for the betterment of our school system. Forces emanating from the plain people, who are always found, in the final analysis, to be the burden-bearers, the uplifting, clarifying agent of any community; these are the ones who are bringing about the great improvements of our day. Our system of elementary schools must to a great extent be moulded by the influences coming down from the secondary schools and colleges, and filtering through them to the people.

If we look back, not so very far, what do we find as one of our earlier mile-stones in America's higher educational fields? Do we find the earlier colleges trying to uplift the common people? No, they never dreamed of such a thing for they were established on well settled ideas that had come to us from Europe where the higher classes had never been anxious about a universal education. The higher schools were for the few and not for the masses—for the aristocracy and not for the menials. I sometimes fear too that the idea carried with it, at least in the minds of some, that the many were to serve the few; that the few were to profit from the ignorance and toil of the many. Thus, the earlier colleges never dreamed of the development of the sciences, nor, when the sciences were introduced, of turning the lines of scientific research into channels that should aid in developing the industries of our country. It was not the fault of those earlier educators for the tradition of centuries had shaped for them their course, and the uplift of the common people rising to assert their rights was what must break through the crust of centuries. With new political conditions forced upon us as we developed from the period of the single home-worker to the day of organized capital and specialized labor there came a demand for changed conditions in our educational methods. In meeting the needs of changing conditions, where the people have had a voice in shaping the policy of the schools, where the spirit of democracy has been strongest, where the people have been freest and least untrammelled,

there we find the greatest progress in the solving of our great educational problem. Here, under these conditions, we find also people from nearly every civilized land with their conflicting views, each tolerant, fortunately, for they are of the people striving for a common good in a new country and civilization and in the developing of new leaders in place of feudal lords. Here then all class distinction has been broken down, and Justin Morrill coming from the people offered to them a new educational world, new possibilities undreamed of at the time in any other country. It was a period of initiative; the beginning of better things for the common people, and for all the people excluding the parasites. That we are not alone in such a view is clearly indicated by an editorial in a recent issue of the Atlantic Educational Journal, which says:

"Enormous changes have taken place in the conditions of civilized life, and have involved readjustment in every field of human activity, including, of course, the work of education. Once schools were intended for the higher classes only; then came public schools which were practically charitable institutions intended for those too poor to pay for educating their children; and finally there developed the democratic ideal of universal education by the state, with schools that should furnish the best education for all classes of the people. The public schools have by no means realized their ideal as yet, but they are working towards it with increasing clearness of vision. Old customs and habits, especially when they become fixed in an institution, are hard to kill. It is only natural, therefore, that the schools of the present day should represent in many particulars the survival of a different era. The education of an earlier day, intended for 'gentlemen,' was naturally preparatory to a profession, or influenced by the supposed cultural needs of the man of social position. At the present day it is natural that there should be an insistent demand for definite recognition in the schools of the needs of the vastly larger number who make up what may be called the industrial class, including in that term the engineer and the manufacturer as well as the humblest worker. The change involved is fundamental, and embraces problems of the first magnitude, which naturally become the subject of infinite argument and disagreement. The clash is best perceived as it appears where extremists are involved; the old-fashioned culturists sneering at nail driving and every form of constructive work, the utilitarian at poetry and the humanities in general."

The problem of education in this country is not like that of many parts of Europe where in the common schools there is provided a simple curriculum for the peasant children who are to live just as did their fathers before them and do the same things as did their fathers. The teaching in such communities is not intended to inspire the children to the noblest and best that is in them; to enable them to rise to higher planes in their country and among their fellowmen.

While the few in this country have in some instances of late years tried to shape the policy of education for selfish ends, the plain people have rebelled and to a considerable extent have determined the character of the schools in their state and community. It is well that this be so, for I would not see the common schools pass from the control of the people them-

selves. The controlling power should not be too largely centralized, but a directing influence from above may safely aid in guiding its course.

Our system of schools is now so articulated that from the kindergarten to the college or university the student is prepared for that which follows or that which is higher. There are some who have dared to criticize such a system as being unjust to the great common people; who feel that our elementary schools should do more for our pupils who are not going to the college or university. It is claimed in the business world that when our students go out from the common schools to their work they have been found lacking in ability to do anything definite in a very satisfactory manner, for they have all been trained for the college when less than five per cent will ever go through the high school, and less than one per cent go on through the college or university. It is this condition which has caused uneasiness in the public mind with regard to the efficiency of our elementary public school system.

Why should the great American school system be maintained solely to serve for the fitting the one per cent to reach the final goal set for them so as to make them effective workers, and all the others, through ineffectual schooling and training become less satisfied with their conditions of life? We must not, however, hold our schools responsible for all the ills of our time, and this is just what too many are inclined to do; for they do not see clearly the true conditions and draw safe inferences from such facts as they have, and, just here lies the danger for, says President Eliot of Harvard,:

"Democratic institutions will not be safe until a majority of the people can be trusted not only to observe accurately and state precisely the results of observations, but also to draw inferences from these results."

It is to make possible such a condition that many friends of our elementary and secondary schools as well, would see these schools do more for the pupils who are not going to college. In other words, that the schools become more vocational in their nature in order to meet the changed conditions in our political and social life.

A recent report of the U. S. Commissioner of Education says that of the entire attendance upon our schools, public, private, denominational, elementary, secondary, normal, collegiate, professional, technological, all combined, 93.31 per cent were in the elementary schools; 5.17 per cent in the secondary schools, and only 1.52 per cent in all the rest combined. Now observe the facts: Of every hundred youths who start in our schools 94 never go beyond the elementary grade and nearly 98.48 per cent never get beyond the high school. Then why should not the work be so arranged that those who desire may get something that will make them more capable, more efficient, happier in the performance of their daily task for but few of them will have the means of getting a higher education. Then why not have more of the vocational, more of work, if you please, in the elementary schools and on through the high schools; this too without weakening the essential features of our present educational system. In our larger towns let the vocational work begun in the elementary school be extended into two types of high schools; the one we already have and the other the

new type, a technological or industrial high school. In the country let us have more of the agricultural high schools so that all our people, and not a favored few, may be the beneficiaries of a type of education which makes for efficient citizenship. Let us not consider our high schools alone as fitting schools for all of our people.

The high school is not to be classed in its true conception with the old New England Academy or Latin School as an exclusive, fitting school for Colleges of a certain type and often for a single college, but nevertheless the then predominant idea has continued to prevail and shape the courses of study. Let the schools of every community be shaped to a considerable extent in accordance with the needs of the community in its vocational part, but uniform throughout in its cultural and disciplinary features. We observe, therefore, that with the introduction of a type of higher education started with the work of Justin Morrill and promoted by a few far-sighted philanthropists we have a new mile-stone in the educational forces of our country.

With the establishment of the Agricultural and Industrial Colleges began the most remarkable period of change in the history of education. Previous to this time, aside from the three professional schools of law, medicine and theology, the learned professions, all colleges were adhering practically to the one general course in classics, namely, the dead languages and mathematics as disciplinary studies. No courses and but few studies in either general or applied sciences; and the only kind of engineering known previous to this time was civil and military engineering. Through the public land-grant colleges came courses in general science, chemistry, biology, mechanics, electrical, mining and sanitary engineering, agriculture, horticulture, forestry and many special courses in applied sciences. Such then is the gift to enrich education that has come from the establishment of the Agricultural Colleges until to-day all of our prominent Colleges and Universities are following the lead of the Agricultural Colleges, in trying to benefit all the people rather than a few favored individuals in endeavoring to make their work more practical so as to be immediate benefit to the youths and to the industries of our land and this without in any way detracting from their educational and disciplinary value.

Again, today we are, seeing the same force at work which brought about the former changes; an uplifting through the influence of the common people, a force which is shaking the very foundation of our common school system, not seeking to over-throw our elementary and secondary schools but to enrich them and place them where they properly belong; not as academies fitting exclusively for a higher institution but making them more efficient for the 98.48 per cent of our youths and this without in any way crippling their efficiency in preparing students for higher institutions. We may hasten the day or we may retard the day when the full fruition of the idea now working for the development of vocational education shall have become perfected, but we can no more prevent it than we can prevent the changed political and social forces that are sweeping over our land for the betterment of our people.

It is the recognition of this uplift and the turning of our educational

forces more fully to the development of a system of elementary and secondary education that will satisfy the conditions of our time and the demands of the people, which has distinctly marked the progress of the year. More and more we see educators turning their attention to vocational work. Agriculture, shop-practice, and domestic science are being generally introduced into our schools, country and city alike, and special teachers are demanded for these branches and to this extent vocational specialization in our elementary and secondary schools has come to stay and enrich them. Agricultural, technical, science and trade schools are multiplying especially in the East. The normal schools and colleges are preparing to meet the demands and conditions placed upon them, and with the accumulation of a great mass of facts as the result of research work at our Experiment Station there has come a rapid development of the extension system of teaching from our Colleges and Universities. Great progress will be made in the next few years if we do not make the mistake of having all these schools and agencies attempt to do the same kind of work in vocational lines.

Let us not imitate too far but develop the work in accordance with the needs of our constituency. The educational needs of Fargo may not be the same as in Bismarck or in Minot. In the agricultural schools the needs of the Valley will not be the same as on the plateau at Dickinson or at Williston. I am aware that I may be considered as being on dangerous grounds not wholly orthodox, but I at least have the courage of my convictions and faith to believe that the coming changes are for the best. If you study the growth and development of our colleges and universities you will find those have succeeded best and reached the highest development where they have seen the needs of the community and of the times and have then had the courage to strike out and develop conservatively the new lines for its constituents, not discarding that which was best in the cultural and disciplinary studies but including the new lines to make the most perfect of its kind in the educational field. When all has been accomplished we shall have woven into our civilization the best that the age can give us but we will still be far from the Eutopian Age.

Briefly, then, the progress of the year may be found in the continued growth of all our educational institutions; in our more fully recognizing the demands made upon our schools through the changed conditions of our complex civilization, the organization and specializing of labor and the massing of capital, by giving to the schools more of the vocational work; training the pupils to meet the needs of the community without discarding that which is beneficial and best in the old system; the reaching down of our higher institutions of learning and coming fully in touch with the needs of all our people; the further introduction of agriculture and domestic science into our elementary schools, and, in some schools, the awakening to the fact that mathematics may be so arranged and presented as to make it more fully vocational without in any way detracting from its disciplinary character; and of this we shall have a much further enriching in the near future if we would but serve our constituency. We have seen teachers better trained for their particular line, specialists,

coming to teach vocational and agricultural subjects; teachers slightly better paid but still so far from what they should receive that we cannot hope to bring permanently into the work the best trained and developed minds that the schools might become the great force that they should be in the community.

Until our elementary schools are made to articulate as fully with the industries of a community as with the College, and University they will not be doing their full duty to the youths of our land. Parents will not be doing their duty to the schools and children until they recognize their responsibility in the training of their children to lives of usefulness and obedience to sound home training.

When all has been accomplished that should be done for our elementary and secondary school system we shall divide the time more evenly between the cultural and disciplinary studies, and the vocational studies and work. Then our youths should go out from our elementary and high schools into the world fitted to do some one thing well. They will meet the requirements as named by President Eliot already referred to; new standards will be set for our business and professional world for the directors of "Big Business" can no longer exact every tithe "the traffic will bear;" they can no longer maintain a system of machinery within a system, to sap the life-blood from the laborer by fattening themselves at the expense of their trust; chemists will no longer be given employment to devise forms of deception and adulteration to enrich the few and weaken and degrade the many; professional attorneys and lobbyists will no longer find employment attempting to evade natural as well as Statute Laws to keep their principals out of the penitentiary when they belong there, and justice will be tempered with mercy and not such as Judge Lindsey has so faithfully depicted, which defects not alone confined within the bounds of the state. The trend of elementary and secondary education is now turned in the right direction, and as we hasten the day of its perfection we shall have done much to make safe for all time our democratic institutions for then "the majority of the people can be trusted not only to observe accurately and state precisely the results of observations, but also to draw inferences from these results." Then, and not until then, shall we have the fullest possible measure of happiness for the 98.48 per cent of our people who can go no farther than through the elementary and vocational schools.

THE NEED AND VALUE OF MEDICAL INSPECTION OF SCHOOL CHILDREN.

GUSTAV F. RUEDIGER, DIRECTOR, STATE PUBLIC HEALTH LABORATORY,
UNIVERSITY OF NORTH DAKOTA.

At the time of the Boer War in South Africa the British recruiting officers found it almost impossible to get men for the army that were entirely free from all physical defects. If the careful physical examinations to which the applicants for admission into the army had been rigidly adhered to, such a large percentage would have been rejected as to have made it impossible to get the necessary number of men. This fact greatly alarmed the British authorities, and as a result there was appointed the Royal Committee on Physical Deterioration, and the Committee on Medical Inspection and Feeding of School Children. The reports of these committees, which appeared in 1903, were based upon medical inspection of school children in the elementary grades, and brought out the fact that from 30 to 40 per cent of these children were suffering from physical defects other than defective teeth. In some instances, as high as 75 per cent of the children were found to have defective teeth, and a still larger proportion had never been taught to use a tooth brush.

The result of this investigation was the passage of the medical inspection act, which went into effect January 1, 1908, and applies to all the elementary schools. The system provides for a careful supervision of the hygiene of the child as well as of the buildings and grounds, and for a complete physical examination with recommendations for treatment.

In Germany a true system of medical inspection was developed in 1889, and has since become almost national in scope. The plan worked out at Wiesbaden is almost universally adopted. It provides for a careful physical examination of each child at the time of admission into school, and a re-examination in the third, fifth, and eighth school years. These examinations revealed an unusually high percentage of defects of which neither the pupils, teachers, nor parents were aware, and yet many of them were serious enough in nature to materially interfere with the child's progress in his studies.

In America also medical inspection in our public schools, in the modern sense, is a comparatively recent addition to our educational system. Prior to 1894 there was no systematic medical inspection in the schools of any of our American cities. In that year, however, the Board of Health of the city of Boston selected fifty physicians for this purpose, divided the city in fifty school districts, and began making medical inspections of the children. Chicago, New York, and Philadelphia soon followed suit, but it must be mentioned that these early inspections were made solely for the purpose of detecting acute contagious diseases. At that time no careful physical examination was made of each individual child for the purpose of detecting the various non-contagious defects, such as adenoids, defective eyesight or hearing, defective teeth, enlarged tonsils,

anaemia, and debility. The early inspections were undertaken by the Board of Health for the purpose of safeguarding the health of those who were not at the time suffering from disease. The inspectors were not particularly concerned about the welfare of those unfortunate children who were afflicted with disease any more than to take steps to have them excluded from the schools. The physicians visited each school in the morning and in a private office examined all children sent to them by the teachers. The teachers were instructed to send to the inspector all children who had been absent from school on account of sickness, and all those whose appearance suggested that they might be in the incipient stage of a contagious disease.

In the smaller cities this system of inspection for contagious diseases can be carried out very easily according to the following plan: When the teacher notices on a pupil certain signs and symptoms which suggest the advent of one of the contagious diseases she notifies the principal, and he at once communicates with the medical inspector, who then calls at the school to inspect the suspect. If he finds the pupil to be suffering from a contagious disease, the latter is immediately sent home and the parents are notified of his exclusion, stating the reasons for such exclusion.

The parasitic skin diseases and pediculosis (a polite term for lice) were soon included in the list for inspection and exclusion. In New York City this system was elaborated in 1902 so as to include systematic physical examination for the purpose of detecting all non-contagious physical defects. Similar plans were adopted soon afterward in Boston, Philadelphia, Baltimore, Cincinnati, Chicago, and to some extent in Minneapolis.

Careful records are being kept in these schools of all results of physical examinations and inspections, so that it is possible for us to get a clear idea of the need and value of these examinations. These records show that in some schools as high as 75 to 80 per cent of the children are defective in one way or another. Some of these defects are not of a serious nature and the child may outgrow them, but we know that it is difficult for him to apply himself closely to his studies while suffering from even a slight physical ailment. We cannot expect the child to get the most out of his studies and make the progress that we are expecting of him when he is daily suffering from a sub-acute toothache, earache, or headache. Neither can we expect him to be bright and keen in the class room when his nasal passages are almost entirely occluded with adenoids (soft growths) making it impossible for him to get sufficient air to completely oxygenate his blood. Some of us may not fully realize the importance of supplying our lungs with a sufficient amount of oxygen, but when we stop to consider the fact that life cannot continue for more than four or five minutes when all air is excluded we may perhaps get some idea what a handicap is placed upon a child who never gets more than about one-half of the normal amount of this life-giving element. We all know that it is impossible for a child to pay attention to what is going on in class when he is not able to hear more than half of what is said, or when he cannot see the charts or writings put on the blackboard. We all know about these things, but some teachers, parents, and members of school boards do not stop to find out what an appalling number of school children are handicapped on ac-

count of some physical defect which in many instances can be easily corrected or relieved.

The statistics are as yet incomplete, but they may serve as food for thought, and they certainly bring out some very astonishing facts. In New York City 141,908 children were examined in 1907 and it was found that nearly 70 per cent of these were suffering from some physical defect. In Philadelphia 166,099 children were inspected in 1908 and treatment was found necessary and was recommended in 44,519 cases, or 26.8%. In addition to this, 6,829 pupils, or 4.1%, were temporarily excluded from school because they were found to be suffering from, or had been exposed to, some contagious disease, or were found to be infected with lice, or were unvaccinated. In Baltimore 30,268 children were inspected during October, November, and December, 1909, and 12,360, or 40.8%, were found to be defective, and 135, or .4%, were excluded on account of contagious diseases. The following physical defects were among those most frequently encountered in the various schools:

| | New York Per Cent | Baltimore Per Cent | Philadelphia Per Cent | Minneapolis Per Cent |
|---|----------------------|-----------------------|--------------------------|-------------------------|
| Defective teeth | 74.0 | 10.5 | 1.7 | 41.8 |
| Adenoids | 39.0 | 5.3 | 1.0 | 14.8 |
| Enlarged tonsils | 46.0 | 11.1 | 4.5 | 27.6 |
| Enlarged lymph glands .. | | 1.6 | 0.23 | 49.6 |
| Defective hearing and ear troubles | 1.0 | 0.37 | 0.96 | 8.1 |
| Defective vision and eye defects | 15.0 | 4.5 | 1.3 | 21.2 |
| Pediculosis | 0.4 | 4.4 | 2.0 | 12.1 |
| Skin diseases | | | | |

We have enacted laws compelling parents to send their children to school but with very few exceptions we have taken no steps to make it possible for the physically defective to benefit by the instruction which we have prescribed. We have been much concerned with the education of the child so as to make an intelligent, useful, and respectable citizen out of him, but I want to tell you that it is as important for this end to teach him cleanliness and self-respect as it is to teach him to read and write. As long as we allow from 4 to 12% of our school children to go through school with their heads infested with lice, we are going to fall short in our aim to produce respectable citizens.

After considering these facts, there can no longer be any doubt in your minds about the great crying need of medical inspection in our schools, but what about the value of these inspections. Their value necessarily will depend upon the completeness with which the work is done. If we are going to be satisfied with making the examinations, accumulating statistics, and making recommendations, we are necessarily going to fall short of the desired end. When the work was first started in earnest in New York City nearly 59,000 children were excluded from school in five months, because they were found to be suffering from some contagious disease, or from pediculosis. This wholesale exclusion naturally gave rise to much protest

and argumentation and in many instances no good resulted from it. On the other hand, it was recognized that these children were deprived of their instruction, and in many instances were allowed to drift about in the streets, where they naturally got into mischief and soon found bad company. It soon was obvious that not very much could be accomplished by this wholesale exclusion unless some steps were taken to provide proper care and treatment. Where careful physical examinations are made and treatment is recommended for the non-contagious physical defects, only from 10 to 21 % of the cases are actually treated if the matter is allowed to drop at this point, and it is left for the parents to provide the treatment.

This shortcoming of the system has, however, been met satisfactorily by employing a school nurse whose duty it is to give treatment for the simpler ailments and to follow up the others from day to day, and either induce the parents to take the child to a physician, or get their consent to take it to a free clinic or dispensary. In some cities, school clinics have been established where the poor can get proper treatment without expense. Where a nurse is employed and the children are kept under close surveillance, over 80% of the recommendations are carried out. The benefits derived from this system cannot easily be overestimated. Children, who were backward in their work and were inattentive and absentminded in class, have been transformed into the most alert and brightest pupils in their class, by merely having their eyes fitted with glasses.

Dr. Cronin, of New York, says: "Perhaps the most striking results in the way of physical and mental improvement have been noted in the children, who have had adenoid growths and large tonsils removed. The amazing change which these children have undergone, can scarcely be believed unless actually witnessed. From dullards, many of them have become the brightest among their fellows, after the operation."

One or two specific examples reported by Dr. Cooke of New York may help to emphasize the value of these examinations, when followed by the proper treatment. The first case is that of an Italian boy, nine years of age. He was backward in his studies, perverse, quarrelsome, vicious, and utterly defiant of authority. The teachers could not reason with him, and punishment simply made him more unruly, so that he was finally given up as a hopeless case. He was then examined by the medical school inspector and it was found that he was suffering from adenoids. He was very near-sighted and had very bad teeth. It was therefore no great wonder that the boy was irritable and unruly, backward in his studies and inattentive in class. He could not breathe properly and tossed about in bed all night instead of getting the refreshing sleep which he needed. He could not see what was placed on the blackboard in class and his studying was further interfered with by frequent tooth aches. A little later he was operated on for the removal of the adenoid growths, his eyes were fitted with spectacles and his teeth were taken care of by a dentist. This brought about a complete transformation in his disposition, mentality and physical development. He became polite, obliging, gentle and considerate and soon excelled nearly all his classmates in his studies. Before the end of the year he had skipped one of the grades.

The second case is that of a nine year old girl who had been exceedingly bright in her classes but gradually lost interest and failed to pass to the higher grade. The teacher noticed this change and sent her to the medical inspector who found that her teeth were in a very bad condition and frequently caused her so much trouble that she could not eat, and her sleep was frequently disturbed by the tooth ache. The parents were persuaded to have her teeth fixed by a dentist and at once she improved in her studies and soon was again at the head of her class.

We must not forget either that the system provides for the detection of contagious diseases in the incipient stage, thus excluding many of these cases early enough to avoid an epidemic. In some instances a child with measles, scarlet fever and even diphtheria will not be sick enough to be confined to bed, but the danger from contagion is just as great as in the more severe cases, and these mild cases should be recognized and excluded until the infectious stage is over. Many times no physician is employed for these mild cases and if there is no inspection of the child before it is allowed to re-enter school these children frequently return before the danger from contagion is past, and thus infect others and perhaps start an epidemic.

THE PLACE FOR PHYSICAL EDUCATION IN OUR
PUBLIC SCHOOL.

MRS. UNA B. HERRICK, VALLEY CITY.

The Physical Education course of our schools should begin in kindergarten and last thru the entire school life, and should have this one aim: To develop each pupil to the highest economic value as a unit of society, to the end, that when school life is finished he may carry forth into life a sane, well balanced logical mind, high moral character, and a strong symmetrical properly functioning body, capable of assuring and performing cheerfully and well the duties of cultured citizenship, whether these duties lie in business or in home making or in both.

The Physical Education course in the schools of North Dakota should be given such a place in the school work, as will develop right and lasting habits of active exercise as the rock foundation of all scholastic attainments, moral growth and general efficiency in life.

Is our educational system doing this? From my point of view, no! And yet no state in the Union has enacted better laws in regard the Physical Education course in the schools than North Dakota.

First, the greatest fault, from my stand point, is the strange failure of *school officials and teachers*, to realize the great benefits which can come from well ordered course in Physical Education. There seems to be, on the part of the teachers and school boards really no rational conception of the proper rates of health and physical education, to present and future efficiency. In most schools little or no proper instructions in physiology and laws of rational living is required, on the other hand, too many instructors are living negations of the commonest health principles. Men who almost never take exercise save what is absolutely compulsory, who defy all laws of health and hygiene in matters of class room ventilation—but lay great stress upon intellectual attainments, and morals, and ignore the one thing, that will give permanent value to them, *good health*.

Many of the large factories and stores in the eastern states now realize the increased economic value of their employees when receiving physical training and supply free gymnastic instruction. If a clerk is worth enough more intellectually, morally and physically to his business to warrant the outlay of capital, what about the economic value of the educated man or woman?

The average grade school has too few recess periods and in many, those arranged for, are not properly used. The teachers fail to insist upon pupils employing the time given for recreation in active sports or exercise. They themselves do not set the example and even allow study during these periods.

In a great majority of schools I find the Physical Education upon a distinctly lower plane than the other school work, it is often considered insignificant or a side issue. Then it is hard to arouse interest and make pupils realize the ultimate benefit derived, too often the Physical teacher has to contend with the feeling among the pupils that the physical work is not important but something to be got out by hook or crook.

Children are not taught a clearly defined reason for *faith* in the value of exercise and fixed habits of recreation, they have too frequently to be really forced to take sufficient exercise for the maintenance of health.

During the last five years, I have made close observations of the physical conditions of girls in our schools and formed some conclusions. Physical examinations reveal in a large percentage, a woeful lack of symmetrical development and in many cases—marked deformity. Low shoulders, droop necks, prominent abdomens, awkward gait and poor carriage are so frequent as to be almost the rule, the muscles are flabby and weak, the skin sallow. In place of calm nerves, sound sleep, sane judgment and optimism, I have girls of eighteen confessing to nervousness, confirmed in habits of worry, easily startled by noises, and I regret to say not a few hysterical.

A too large per cent suffering from dysmenorrhoea or abnormal conditions of generative organs severe enough to keep them from recitation for two or three days each month. I believe a part of this is due to lack of training through the grades. So much for physical unfitness.

A result of previous education processes show mental defects which should not exist if the lower schools were doing their duty toward the physique. Too few pupils establish definite habits of concentrated study during their grade work. Instead of schedules of time for the entire day devoting such hours to hard concentrated study, some to work, some to play they jumble all together and the result is a waste of time dawdling over lessons reading without thinking figuring without reasoning until in their mental befuddlement they cry out: "Too much is required, the work is too hard, we have to study all the time." The trouble lies with the physical habits formed during the grades.

Work has not been systematized, sometimes made too easy. Concentration and application have not been required. Education has been spread out too thin, they have learned a little about many things, but have not acquired sufficient consciousness of mental power. Briefly they lack mental and physical self reliance. No where along the educational race track have they received the tip that, he would win in the practical contests of bread and butter life is the one who in addition to a clear thinking, well trained mind, high moral standards, possesses physique robust and strong, which is capable of enduring prolonged and intense application to work either mental or physical, that the economic value of education is not measured by Phi Beta Kappa pins, but by ability to apply what knowledge one has.

The economic value of an educated person is zero unless made operative, by vigorous health and vital power. Another failure of school officials and teachers is: that they do not keep in mind or realize the delicate mechanism of the girl and the close and vital relation of all her powers to her physical health, especially is this true of upper grades.

The entire future of the girl and happiness of those with whom she may be closely associated in after life depends upon the normal development of the generative organs and the preservation of health equilibrium.

Instead of a recognition of these facts and a corresponding lightening of the educational strain during that period we find more demands made upon time and strength.

In short there is too little common sense applied to the teaching of the real value of health and the vital importance of exercise, recreation, and fresh air.

As a result of the varied and strenuous interests during public school work, or as a result of over work, over study, over play, too many girls go out into the world physically unfit to contribute any where near her proper economic value of the worlds work.

We are teachers of young human animals who later can be molded and trained into well balanced cultured citizens. We must teach right living theoretically and practically. The problem is then, that of forming correct habits of exercise for those who do not already have them and confirming and broadening those already formed, and recognize the dept. of Physical Education as the basis of rational mind and character building education.

When the time comes for North Dakota to find a place for Physical Education and hygiene in the state course of study let us remember that the purpose is to develop not bodies merely but habits which shall be operative thru life.

SCHOOLHOUSE CONSTRUCTION AND SANITATION AND THEIR EFFECTS UPON THE HEALTH OF THE CHILDREN.

SUPT. W. A. GODWARD, DEVILS LAKE.

In every age some social movement, some common endeavor, some particular development can be found to indicate the character and aspirations of the people. In one, it is the development of the family until the patriarch dominates the social organization. At another time it is the sweep of religious enthusiasm until it would seem that there is not enough marble in Paros to express the beauty and sublimity of the gods; nor enough granite in western Europe out of which to rear cathedrals which shall pierce the very heavens. At another it is the growth of states and the construction of empires. At another there seems nothing so important as the frivolous refinement of polite society. At another the air is filled with the rush and roar that accompanies the expansion of industry. But it has been reserved for the present age to be characterized by a movement which does not, as these other movements have often done, come into prominence at the expense of the other social activities but in consequence of them.

This is the age of education, not because we have just happened upon this possible and interesting or even useful line of activity, but because education is demanded by the increasing development of the home, the church, the state, polite society, and industry. It grows with the needs of the other institutions and develops in geometric ratio to their development.

In view of the increasing importance of education it is not unfitting that our attention is today directed to building and equipping suitable edifices for the great business of education, nor is any expenditure which we are making in this direction wrongly invested.

It is probably neither necessary nor desirable that we should put the same mystic devotion into the rearing of the modern temples of learning that the age of Pericles put into the temples of the gods, or the middle ages put into piles of heaven piercing stone; but it both rational and in keeping with the spirit of the age that our highest knowledge of science and our noblest conceptions of art be put into these temples of the most important institution of this age. And what is fitting is already becoming a fact. We are putting our best science and our best art into the public schools.

That we are not doing more in this direction in the city schools is due, for the most part, not to any lack of will on our part or lack of intelligence, but to a lack of means. We are in the difficult, if not impossible, position in the city schools of financing a modern system of education with all its increasing demands through the machinery of an obsolete and archaic system of taxation. We have plenty of wealth. No people was ever richer than we, but our wealth is not available for the right purposes. If I had my way, I would make the most adequate and artistic buildings in the city not the court-house nor the jail, but the school house. I would have more

perfect means of education and fewer multi-millionaires. I would have a higher school tax and fewer bequests. More equality in the opportunities of all the youth to be perfectly cultured, perfectly educated and less high living on the part of a spendthrift few.

This would be good morals and good economy. Last year vice and crime are estimated to have cost the people of the United States one billion four hundred million dollars. Education cost about one tenth of that amount.

It is not within the scope of this paper to go into the technicalities of school architecture or school sanitation, but there are some essential features of school architecture that can be stated without a blue print and a bill of specifications and some features of school sanitation that can be stated without a treatise on chemistry, bacteriology, and biology. Some of these we wish to state.

The first essential of a school building must be its adjustment to secure healthful conditions for the children. It must be correctly lighted. What the correct lighting of a building should be is not any longer a problem and absence of correct lighting merely means carelessness on the part of the architect or the sacrifice of this essential to some other condition such as esthetic form or cost of building. Neither of these reasons is sufficient to excuse a badly lighted school room.

The building must be correctly ventilated. Some of the present technical discussions and experiments with reference to ventilation must be passed over for lack of time and also because after all common sense has in the last few years been as near the truth as scientific doctrine. We have always known that we need fresh air and plenty of it. We have usually felt that we want cool air to breathe and be immersed in rather than hot air. Moist air rather than dried—especially kiln-dried air such as some of us have been giving our pupils. All this is common sense and recent scientific experiments have substantiated its soundness. We need plenty of fresh, moist and not over-heated air. We can get it. It is only a matter of using the devices which we have, rightly. I might mention here that two years ago I had two buildings one with modern common sense ventilation—except, possibly the amount of moisture which we got into the air, and one depending on a rather poor gravity system for its air. Medical inspections during the year showed three times as many cases of throat, bronchial, and lung trouble in the poorly ventilated building as in the better ventilated. The result of this one statement to the board of education was a new system of ventilation.

There is no excuse for badly ventilated buildings. Our modern devices can deliver outside air, tempered and moistened as desired, to any part of any building. There is no interference between convenient shape, or artistic lines and ventilation, and the cost is not great.

While this topic does not come under architecture, I may be permitted to say that buildings should be kept clean and disinfected in accordance with the best modern devices. This is expensive but not dear.

Buildings should be designed with reference to their use. Did you ever see a fine pile of brick and stone that was only beautiful as a monument? It had been designed by a good architect but not by a good school architect.

Usually such a building is the result of not letting the superintendent and principal design the general form as to convenience of use.

A school building should be substantial and permanent. This is economy as well as good taste.

School buildings should be beautiful. Beautiful outside and inside. This is in part the problem of the architect. None but an expert can accomplish this and at the same time ignore the other essentials. There is surely no place where modern art can find so fitting, so lasting, so effective use as in the buildings in which all the children of this age are trained. There is certainly nowhere that the science of health and correct living can be so effectively employed as in preserving the health of the school children of the United States and in showing them by example how to live. In modern society it is practically true that what we would have in the state and nation we must have in the schools. Tennyson once remarked that knowledge grows but wisdom lingers. By wisdom he evidently meant the effective use of knowledge and art in the great art of living. If wisdom is to be made to hurry her steps, if knowledge and art are ever to be more than curiosities, we must begin not only to teach them in the schools, but to use them intelligently in the schools, to make the school architecture of America what it should be—representative of our science and art and the means of instructing future generations.

DUTY OF SCHOOLS TOWARD MORAL PROPHYLAXIS. (Duty of Schools Toward Prevention of Immorality.)

MRS. E. P. QUAIN, BISMARCK.

A discussion of this subject is made possible through the crusade against infectious diseases inaugurated by the medical profession and in which the educators of the different states and nations have been very able and willing knights.

Developments have been very rapid. One has followed close on the heels of another. Magazines have taken the matter up and many of them are calling a spade, a spade our educators feel that the subject, if anything, is being pushed too fast and that they must meet it before too many of the very young receive wrong impressions.

By moral prophylaxis is meant the prevention of immorality. We are all agreed that the moral prophylaxis is education. The place where we differ is in the when, where and how this education should be given. Education is very different today from when we went to school. There is more to appeal to the emotions; theaters, moving pictures, magazines and advertising material all that cultivate the imagination and emotions.

Some communities believe in the education of the masses and have organized social hygiene societies to hold public meetings for this purpose. Chicago has used this as one means of reaching her people. Baltimore, Maryland, has a moving picture show, known as "The Illustrated Lessons in Morals." This has 100 slides each, illustrating "The Gentleman," "Personal and National Thrift," and "The True Sportsman," all for high schools. For the upper grades, it has 70 slides showing "What I'm Going to Be When I'm Grown Up;" and for the lower grades it has 50 slides of "What Men Think About Boy's Fights." These pictures are rented to schools in the hope of counteracting the bad influence of the uncontrolled picture show regularly on the road.

Co-education in the high school is a different problem now, than ten years ago. Personally, I believe that one means of prophylactic treatment, is a division of the sexes in the ninth grade and on through to graduation. This is a southern custom and I believe a very good one.

In our schools we have for years been teaching children honesty, courage, responsibility, self control, self respect, and high ideals; but in all of this we have left in the silence the ideal of the worth and dignity of human life; the self respect that will make a gallant lad turn from the courtesies of evil women; the courage to run from temptations that naturally come to all healthy developing young people, and the honesty that overcomes false modesty and forces these young people to question the right authority concerning matters of life.

The lessons about the development of the human body and life cannot be preached to a child; they must come when he is in the right mood and as the answer to questions if possible. The child should be alone with his counselor because the sacredness of his confidence must be preserved. The mother should be the first moral teacher—many a man has been kept

from temptation by these first lessons, sacred in the memory of his mother long since gone to her reward.

Many mothers cannot give early sex talks to their children because they do not know how. I believe that one of the school's duties toward moral prophylaxis is to these mothers. Have Mother's meeting where some person can instruct them. The necessity of mothers instructing their children may have to be proven to some, so do not make the object of your first meeting a public notice. A crusade loses half its good results if every step in its plan is public. Parents must accept their share of the responsibility in making men and women of our boys and girls. They must know the common dangers that their children will meet.

The campaign against infection that has been carried on for the last ten years with more or less earnestness in all the civilized world has not overlooked the diseases which in the past have been known as social diseases. The alarming spread of these among innocent people, due to the use of the public drinking cup, public towel, and unhygienic habits of people at large makes it necessary for us to become better acquainted with them in order to save the race as well as to protect our morals. Health and morality go hand in hand. We can better teach morals to the strong healthy mind in a strong healthy body. Social diseases in other words are diseases which result from immorality. They are known to the medical profession as venereal diseases. There are two of them and they are highly infectious. One is the cause of 50 per cent of the blindness in the institutions throughout the United States, and 80 per cent of the operations done on women in the New York hospitals. The number of divorces caused by this disease are not chronicled because of the difficulty in obtaining statistics. This disease is known as "Clap" to the laity and gonorrhea to the medical profession. This disease is generally curable, but people think they are cured before they are, and thus the disease is frequently spread. A patient is cured only when the microscope proves him to be.

The other disease is, if possible, more terrible because it can be handed down to the third and fourth generation. Like the other, patients think that they are cured when they are not. Once infected one must have three years of constant treatment to be free from the disease. Any time during those three years he is a danger to the people about him. This disease is Syphilis, and a great army of the world's cripples and nervous wrecks, as well as insane patients, are its result. Our boys can choose to be manly boys, and manly men, and the dear old men that every body loves, or they can belong to the other class. It is in their power to choose, after the proper knowledge has been given them.

The city of Detroit, Mich., treats these two diseases as all other infectious diseases—it requires all physicians to report them to the health officer. The state of Indiana refuses a marriage license to people who cannot give a clean bill of health. These restrictions cause people to ask questions, and thus prove an education to parents. After this instruction, if the mother does her duty, the child is disposed of to the fifth or sixth grade.

To the parent of the child of ten or twelve years, who has missed the opportunity of gaining the child's early confidence, and feels that it would

not be wise to undertake the task himself, I should say, take the boy or girl to your physician. The physician knows better than anyone else the number of boys and girls in your community who are infected with these diseases, and he can speak with authority. Another way would be, to ask the superintendent to give the lesson or arrange to have his teachers do it.

For the teacher to be able to give the best results, she should have had training in social hygiene herself. This opens a new work for the normal school.

The homes, the schools, and the churches in the state of Rhode Island have started a campaign against these diseases. They have appointed a publicity committee to select pamphlets and other literature for use of parents, teachers and preachers in this work.

The American Medical Association has had a committee at work for several years preparing pamphlets of this kind.

The care that will prevent infection in other diseases will to a large extent protect children in these, and this care can be taught through all the grades, in connection with hygiene.

In conclusion:- The prevention of immorality depends upon education. This is best taught by the mothers. If necessary educate the mothers.

If mothers are unavailable, educate teachers to meet the emergency.

Concerning the education itself, if you consider it worth doing at all, I charge you, make it a matter of such dignity that it can be given as an individual lesson without interruption.

SHALL WE EMPHASIZE A COURSE IN MORAL TRAINING?

P. S. BERG, DICKINSON.

We desire to begin our discussion of the question, Shall we emphasize a course in moral training? at a point where we can meet every patron and every tax-payer. In the constitution of our state we read, "A high degree of intelligence, patriotism, integrity, and morality on the part of every voter in a government by the people being necessary in order to insure the continuance of that government, and the prosperity and happiness of the people, the legislative assembly shall make provision for the establishment and maintenance of a system of public schools which shall be open to the children of North Dakota."

The national education association at its last meeting declared that "The fundamental consideration in any system of schools is the development of inflexible integrity and strong moral character in those receiving instruction. The Republic cannot survive without a citizenship with high ideals of patriotism, duty and service. This association, therefore, commends most heartily the growing interest in the moral development of the children of the nation."

Let us say then that the mission of the public school is to prepare the young for the duties of citizenship. It is on this ground that the state takes it in charge, and that the entire public is taxed for its support. It is for the general good that every member of the state shall possess a certain degree and kind of education. We may, I doubt not, go a step farther and affirm, without meeting any contradiction, that the main objects of instruction in a course which leads to citizenship are, in order of their importance, character, mental training, knowledge. There can be no reversal of this order. There is no safety, there is a positive danger, to the state, in any education which fails to balance intellectual power in the citizen by the development of right character. Such education puts a mighty weapon into the hands of those who are to grow up enemies of good order in the state. It were a monstrous doctrine which should deprive the teacher of any means by which moral instruction may be made more effective.

In the daily work of the average school the teacher's thought is engrossed with the teaching of language, history, arithmetic, spelling, reading, writing, music, and drawing. Her energies are expended in having her pupils get intellectual grasp of the lessons in these subjects, and then in having them able to retain and recall, as occasion requires, part of these lessons. We do these things from day to day and from year to year as if there were some necessary connection existing between character and conduct on the one hand, and intellectual development on the other. Yet the most casual observer can see that in a given school a boy who has made the highest grades in arithmetic for example, may be the readiest to cheat in examination; that another may lead his class in spelling and be the meanest boy on the playground; that still another may have the lowest scholastic record and yet have more of the elements of character at which the school professedly aims than any other pupil in the school. In fact there is no truth much more obvious than this—that knowledge is power for evil as

much as for good; that great learning may have great boorishness as its inward counterpart; that brains and brutality, high talents and an immoral soul may go together.

Moral and intellectual development should be carried on simultaneously. Each is the complement of the other. To separate them is to defeat the object of both. But were it possible to separate them, and to give precedence to either, moral culture has the first claim. The moral and religious part of man's nature is the highest. Of right it has sovereignty and dominion over all the rest. The whole scheme of creation, at least so far as it relates to man, was based on the supremacy of the moral faculties. Civilization is but the ascendancy of the moral and religious element of the human nature in the aggregate.

"Lord, deliver the laddies (and the lassies) before Thee from lying, cheating, cowardice, and laziness, which are as the devil. Be pleased to put common sense in their hearts, and give them grace to be honest men and women all the days of their life." These words from Ian McLaren have been called "The Schoolmaster's Prayer." On sober thought we must all subscribe to the thought of their author who puts emphasis on the need of manliness, of the homely but fundamental virtues of truthfulness, fairness, courage, and industry which may be found even where little learning is, and may be absent or nearly so in the lives of the wisest.

Stanley Hall recently said "The question of moral education is the paramount question of today. Everything is valuable in so far as it makes men better. Nothing has a place in a school reader that has not a moral end, latent at least. It is as much the business of the school to make morality as mentality its end. As parents, most of us would far rather our children should be helped by the school to appreciate the difference, the infinite difference between good and bad, than that they should learn the lore of the ages and miss the other distinction.

As the dew which silently refreshes the earth in the morning and appears to vanish e'er the business of the day is fairly begun, so our work lies largely with those in the morning of life. As the dew which sparkles in the early morning light, is soon absorbed by leaflet and flower, to invigorate the plant and enrich the earth, so should our silent influence, our words, our acts, sink deeply into the child-life committed to our care. And though like the dew our efforts seem to be lost in the hurry and bustle of life, depend upon it, that as not one sparrow falls without the notice of your Father, so not one kind word, act, or thought, not one blow against evil and for the right shall fail. The public school is the only place where moral training and influence can be brought to bear on a majority of those whose homes are devoid of them; and no other agency is capable of producing such definite results in this direction. Not even the Christian ministry is above the teaching profession in the variety, adaptation, and power of its appliances, and in the immediateness and productiveness of its results which may be gained by their use. The minister teaches at intervals, while the teacher's work goes on from day to day. The preacher can point to the right path but he cannot make his hearers walk in it. He cannot constrain the will and bind it firmly to duty; nor can he exercise the power of per-

sonal authority and discipline or stamp his own entire individuality, with all the weight of his varied knowledge and force of character, upon his people, as can the true teacher upon his pupils. He labors to impress those whose habits are fixed and whose sensibilities are blunted. The teacher operates upon the impressible minds and hearts of youth, whose souls are all aglow, and whose hearts are plastic under the gentlest touches of his hand, and tenderly responsive to all his thoughts and feelings.

Shall moral training be secured through formal lessons in ethics or incidentally through the work of the school? By neither method alone. There is need of instruction by precept and by example; the two go together, the one is the complement of the other.

Direct, conscious moral teaching must begin with concrete lessons. What is more, such must be the lessons, in great degree from first to last. The young pupil has small power, rather no power, of formal abstract thought, while he readily responds to objective facts and examples that come within his range. Maxims and precepts are important, in their place, but they do not appeal to the boy or girl like deeds or persons. Moreover in youth the feelings and imagination are active; the judgment and conscience develop later. The learning of these facts in moral education is all important. "Young children," says Pestalozzi, "cannot be governed by appeals to conscience, because it is not yet developed." Says Rousseau, "You might as well expect children to be ten feet high as to have judgment in their tenth year." Says another writer, "I admire the good taste of those medical gentlemen, who, where it is necessary to administer quinine, neatly enclose it in wafers or capsules. They secure for the patient all the strengthening, beneficial effects, without any of the bitter accompaniments. From this we teachers may gain a valuable hint. When a moral lesson is to be given wrap it up in a story or tale, and then it may be sent home with wonderful force."

Bain declares that stories of great and noble deeds have fired more youthful hearts with enthusiasm than sermons have. "To hear about good men," says Richter, "is equivalent to living among them." For children there is absolutely no other morality than example, either seen or narrated. Horace Mann says, "Let a child read and understand such stories as the friendship of Damon and Pythias, the integrity of Aristides, the fidelity of Regulus, the purity of Washington, the invincible perseverance of Franklin, and he will think differently, and act differently all the days of his life." Herbert Spencer puts the thought thus, "Whatever moral benefit can be effected by education must be effected by an education which is *emotional* rather than *perceptive*. If in a place of making a child *understand* that this thing is *right* and the other *wrong*, you make it feel that they are so; if you make virtue loved, and vice loathed, if you arouse a noble desire and make torpid an inferior one; if you bring into life a previously dormant sentiment; if you cause a sympathetic impulse to get the better of one that is selfish; if, in short, you produce a state of mind to which proper behavior is natural, spontaneous instinctive, you do something good. But no drilling in catechisms, no teaching of moral codes can effect this; only by repeatedly awakening the proper emotions can character be changed. Mere ideas received by the intellect, meeting no

response from within, having no roots there, are quite inoperative upon conduct, and are quickly forgotten upon entering life." Moral instruction is never so impressive and lasting in its effects as when put in concrete forms. Dogmas and precepts, after all, are only things, and they do not take hold of the understanding and the imagination like personal acts. Concrete lessons, however, are not the only means of moral training. The most important maxims of morals and manners should be formally inculcated. "Inculcated" is from *inculcare*, to "tread on;" from *in* and *culcare* (from *culx*, the heel); it means to impress by frequent admonition, to teach and to enforce by frequent repetition, to urge on the mind. The etymology of the word shows the thoroughness of the work intended.

However, it is not wise for the teacher to become a lecturer on these subjects. Moral homilies will not greatly impress the younger pupils at first or they will soon be forgotten; while the older ones, especially the boys, are always restive in school under what they call "preaching." The teacher should avoid sermonizing, abstract moral lectures are as a rule distasteful and irksome to young minds. Brief familiar talks, on suitable occasions with free use of concrete examples and illustrations, beautiful bits of poetry, choice maxims, and gems of thought and sentiment, are among the most effective means of cultivating the sense of right and duty in the young, at whatever stage of advancement. Moral precepts are always most impressive and most fruitful, when brought in without reference to a fixed program and when the time is ripe for them. It is well to call special attention to a theme when the minds of particular pupils, or of the school generally are in an impressible state. Pupils dislike lectures on abstract subjects, and daily lessons in morals, it would, it is believed, soon become distasteful, and more harm than good be accomplished. Dr. Tomkins well said that "morality is not something added to a man; it is a man." So morals should not be a part of the course of study. It should be the course of study.

Several states require by statute the teaching of morals in the public schools. Some require at least forty lessons a year on morals to be given from a text book. If that is all, it is all wrong. Boys do not learn honesty and girls modesty in a text book on morals.

"Have you got your lesson morals?"

"No, I just hate morals, worse than Cæsar." Such conversation is not uncommon when text book morals are planted in the schools. Any teacher can hear a text book lesson on morals, but if he be not himself a living encyclopædia of practical morality the moral natures of the children will be ruined rather than benefited by book morals. Moral instruction from fathers who are grafters, mothers who are white liars, and teachers who are frivolous and conscienceless, will never improve the moral condition of the young. The first step in the teaching of morality was indicated by a great teacher when he said, "First cast out the beam which is in thine own eye and then shalt thou see clearly to cast out the mote which is in thy brother's eye."

Admitting what has just been said, still the pupils should be drilled in the best moral lessons of all countries and ages. We are living in an age

of reaction against the rigid moral instruction of the New England fathers, and there is danger that we shall go quite too far in our repugnance to direct instruction in practical ethics. Indeed it is a vice in our age not to know anything definitely, we read, not a few books, but everything. We remember a mass of things, but nothing distinctly. We have no patience to commit the best to memory and treasure it. "Johnny," said a Sunday School Teacher, "do you know the tenth commandment?" "Yes ma'am." "You may say it." "I can't." But you said you knew it." "Yes ma'am, I know it when I see it." He knew it by sight. So do we know all things, but often have not written them on our hearts, to be a constant standard and reminder.

A strong factor in moral training is the personality and character of the teacher. I may say this is at the root of all moral education in the school. The teacher's ideals, sincerity, poise, self-control, courtesy, voice, manner, and attitude toward life and potent forces for character building. "Let him first be a man," as Rousseau puts it. The first essential of a strong influence is manhood-manliness. Would you have the best influence on your school, be a manly man or a womanly woman. Teachers must have an unselfish interest in the children and be able to sympathize with them in all their activities. I have never known a teacher to have a strong abiding influence over their lives unless the children were first convinced that their had a genuine interest in them. The first requisite in reclaiming and transforming children is to convince them that we have an unselfish interest in their welfare. Teachers must be able to sympathize with their pupils in all conditions and under all circumstances—sympathize with them in their work and in their play—sympathize with them in their difficulties—sympathize with them in their joys and sorrows. The Great Teacher is touched by our infirmities—He sympathizes with us. It is by the mystic bond of sympathy that virtue, the healing and transforming power of one soul is transferred to another. As oxygen is to the body, so is sympathy to the moral life of the child. "There's naught in this bad world like sympathy." It is the golden rule in the heart. The teacher who has the power of putting himself in his pupil's place has an immense advantage. He can draw near to him, can come into the inner chamber of his young life when the door would be shut and barred against the cold and unsympathetic teacher.

The moulding and transforming influence which some teachers possess is due more, largely to their ability to make their pupils share their interests than to anything else. They stoop to conquer; and the little ones press forward to receive in the contact new vigor in every power. A man that has little sympathy can never be a teacher in the best sense of the word. He may be a hearer of recitations, a martinet of discipline, an enforcer of spurious attention, but he has no power touch the heart, and through the heart to fashion the mind and will into a form of blended strength and beauty.

"What delight can equal those
That stir the spirit's inner deeps:
When one that loves but knows not, reaps
A truth from one that loves and knows."

The regular work of the school, its daily requirements and tasks, must prove a moral discipline. Spelling lessons and arithmetical problems are not directly related to virtue; but no child can master the lessons or solve the problems without getting an excellent discipline of the will. Confinement and restraint have much to do in creating character. This thought has been well expressed by Stanley Hall in these words; "Only great, concentrated, and prolonged efforts in one direction really train the mind, because only they train the will beneath it. Many little heterogenous efforts of different sorts, as some one has said in substance, leave the mind like a well-used blotting paper, and the will like a rubber band stretched to faddity around one after another bundle of objects too large for it to clasp into unity. By staking the horse or cow out in the spring time till he gnaws his small allotted circle of grass to the ground, and not by roving and cropping at will, can he be taught that the sweetest joint is nearest the root; these are convenient symbols of will culture in the intellectual field." The habit of doing the duties each day the duties assigned in the school in a successful manner, brings to the pupil a long training in the habits of industry and builds into his character the feeling of personal power and self-reliance, and the discipline of accomplishment that comes from continued success. On the other hand the habit of failure, or of leaving work partly done is weakening in its tendency and often immoral. A boy gets up with his lesson half learned, or quarter learned, or not learned at all. He begins to talk. If he talks nonsense, as he is likely to do, he should before he gets through be made to understand not simply that he has failed in his recitation but that he has failed in becoming a good man. He should understand that the very essence of learning is to use words carefully and precisely. Have we not been guilty of the mistake of neglecting to lay proper emphasis upon the moral value of study itself. Grand old Martin Luther held that to study well was to pray well. And Hegel, it is said—I do not justify him altogether when he was invited by his good wife to set up family prayers, said it was necessary for him to devote himself to the elaboration of his logic. Putting into the work of study your heart, is being good in a heart-felt way; training boys and girls in steady work, in patient industry, is training them morally.

There is a psychological principle which has been much neglected and which I believe lies very largely at the foundation of this moral training. It is this—the average human being naturally loves to play; but the average human being does not love to work. The average human being will love to work, when he has been disciplined in any particular kind of work, that he can do that work with ease and therefore with pleasure. The bait of pleasure can not be used solely or largely to secure disciplinary work. By training and disciplinary work the human mind can be made to take pleasure in the work because the mind has learned how to work with ease and enthusiasm in that particular line of work.

The unconscious tuition that comes from the pupils and from the government of the school are potent factors in ethical education. Says Emerson, "You send your boy to the schoolmaster, but it is the school boys who educate him." A school is a society or economy, and each member not only acts upon all the others, but is acted upon by them and by the society

itself, considered as a unit or a solidarity. In these associations pity, kindness, moral indignation, sympathy, admiration, choice, volition and other qualities are called out and strengthened. Not only so, but children learn to appreciate and respect, at least in some degree, the rights, interests, and feelings of their fellow pupils. It has often been observed that the only child is often exacting, arrogant, and self-willed; the reasons or causes being parental indulgence, and lack of that discipline which comes from constant association with other children. Our free schools are the most democratic of American institutions; differences of birth and rank disappear in the school room and on the play ground.

An unconscious tuition comes from the government of the school. In school the pupil learns that he is only one among many. He acquires the spirit of obedience and submission to authority; he learns the value of punctuality and thoroughness, the meaning of law, and the uses and powers of a governor. Rules requiring that such and such things shall be done—rules that such and such things shall not be done—rules requiring that things shall be done in such and such a way—rules requiring precision, promptness, and dispatch—such rules as these kept within reason, and valuable in their tendency and effect. 'Tis much for a child to learn that he cannot always have his own sweet will. A teacher's law requiring all pupils to be in their places at nine o'clock or to give a good and sufficient reason for the failure, may teach the whole community a needed lesson in punctuality. Conscientious accuracy in the teacher is a strong moral force while slipshod mental habits and indifference to truth tend to lower the tone of the scholars and the school. If the teacher is indifferent, careless, or reckless in teaching what took place in congress or on a battle-field one hundred years ago, how can she blame the pupil for untruthfulness in relating what took place on the school ground yesterday. In general, the maximum effort put forth by the pupil is determined by the minimum requirement set by the teacher. When will teachers learn that in school, as in life, we get what we go after; how often have I seen a teacher who on account of her force and rigid requirements would bring the best out of a pupil and keep him working at his best, while another teacher who lacked one or the other of these requirements made a total failure.

The school should train to self-reliance and self-control. Every teacher has seen the flush of pleasure over the face of the little child who has succeeded in doing that which threatened to baffle him. What a contrast does he present to the child who has the work done for him. The great temptation of the teacher of the present day is to do too much for her pupils. There may be no royal road to learning, but there is too much paving of the way. Pupils should learn not only to obey instructions intelligently, but to grapple with real difficulties; to regard each unusually hard problem as a challenge which it would be disgraceful to decline; to set themselves deliberately to work to find out the exact truth on some point. These virtues grow, like other habits, by exercise. At no point has the teacher greater need of practical judgment than in giving assistance to pupils. She should train them to blaze their own way thru the forest—to despise a road paved by constant help and explanation.

Shall we emphasize a course in moral training? Certainly. Shall it

be conveyed only or mostly, thru the character of the teacher, operating as a constant object lesson and persuasive influence in both the righteous substance and gracious form of conduct? Or, shall there be systematic oral or text-book instruction in morals? We declare decidedly in favor of a union of both methods. True, actions speak louder than words; and example is better than precept. Personal devotion to an admired, trusted and loved leader is one of the strongest and most generous of motives. The reason for including systematic instruction in morals is, that the personal popularity of the best loved teacher, acting winsomely on susceptible young affections and impulses, and so making it especially easy to do right, is not enough, without a clear understanding, gained by study, of what is right and why; so that a measure of intelligent judgment, as well as sympathetic feeling, can be enlisted in behalf of well-doing and against evil-doing; and so that this right will be done and wrong resisted under difficult as well as under favorable conditions.

What then is the conclusion in view of this discussion. The school should afford, not merely moral instruction, but that which is far better, moral training. It is as much the duty of the state to protect itself against vice by teaching virtue as it is to protect itself against ignorance by teaching the knowledge that enables one to earn his bread, and take care of his earnings; also that every child has an even better right to an education in the elements of good character—without which knowledge is but a tool of mischief—than he has to any or all other learning, however precious it may be; and thus we shall realize the motto that “before knowledge we should place culture, and before culture we should place character.”

MUSIC AND ART AS MORAL FORCES IN EDUCATION.

EDITH E. BRANT, MAYVILLE.

All through the ages our ideas of good and evil, right and wrong have been shaped by our idea of God; a cruel, avenging God, a cruel, avenging people, a justice loving law-giver, as with the Jews, a race that brought for the law, "Thou shalt love thy neighbor as thyself."

The systematized organization of the ideas relating to God and his judgment of good and evil is called religion and, as shown in the foregoing examples from history, the morality of a people depends upon how high these ideas reach.

Since in the very nature of the idea God must be greater than any conceivable man in strength, intellect, understanding, love, and with the heathen, hate also, then to conceive anything of Him at all demands imagination—the mind that can grasp analogies so as to see the relation of things and trace back from effects to the Great Common Cause. Call that cause God, or nature, or supreme intellect, or innate consciousness, whatever you will, the word stands for the highest ideal the individual mind is capable of conceiving. To repeat, the highest ideal the mind is capable of conceiving is the embodiment of that mind's religion, whether or not it is consciously named religion—and the individual's religion constitutes his moral law.

Just as water cannot rise higher than its source, nor sink lower than its level, the moral nature of the individual cannot rise higher than his ideal, nor sink lower than his lowest conception.

The power to picture what is better or worse than reality is called imagination. Whatever develops the imagination toward a high ideal in truth, justice, love, charity, balance or power to weigh all sides of a question, must raise the moral nature of a person in whom it is developed.

Now, the study of any art develops the imagination, else it not art. Tolstoi in "What is Art" says, "That only is art, which shows us either something we have never known before, or shows what we have known before in a new way."

Art is the expression of the imagination moulded into a concrete form, since the highest moral conception in all time has been connected with religious feeling; the expression of religious feeling has given us the greatest moral art the world has known.

David watches his flocks on the hills of Bethlehem. Through his senses his imagination is kindled—when nature is disturbed, God rides in the mighty wind! He shoots his arrows in the lightning! He thunders his wrath in the storm! He is the God of infinite power. Nature is serene and quiet—God becomes to David the Gentle Shepherd. He maketh him to lie down in the green pastures; He leadeth him beside the still waters; there shall be no want. Thinking these thoughts out there in the solitude, David's feelings are stirred to the depths. He sings songs; he plays on his harp, and his voice and his harp are so charged with those feelings that all that hear, even to this day, are stirred also with the conception of the power of God and faith in His goodness. David plays on his harp and

sings to Saul and the evil spirit, that is within Saul, departs. This is the province of the great artist—to communicate the great emotions from his own soul to the souls of others.

If he communicates these feelings or emotions by rhythmic sound, the art is poetry or music; true music, that is, not combined with poetry, expressing that for which there are no words. If the feeling is communicated by forms, in lines, masses of light and shade or color, the art is painting or sculpture. If expressed in action it is dramatic art.

All influences on the mind or soul are moral forces in education, whether we recognize them in the school program or not.

We do recognize that phase, which presents art from the standpoint of the child as an originator, that is, as expressing himself through the song, the line, the form, the color. I do not believe that side of the influence needs to be, nor is expected to be discussed by me. But the other side, how the child may be affected morally by the music, the painting, the sculpture of other people, that side, it seems to me, we must discuss over and over from our educational platforms in the near future, if we are to have the moral influence we should have from art in the schoolroom. As suggested in the foregoing, the great religious art is safe.

Ichtnos, conceiving the dignity and beauty of the Goddess Athena, planned the perfect proportions of the Parthenon, and in the same spirit, Phidias added to its beauty by his matchless sculpture. Even in its ruins, the mass of stones inspires feelings that are moral and uplifting.

Michel Angelo, filled with the story of the Creation, and a conception of the greatness of character in the prophets, frescoed the ceiling of the Sistine Chapel, and we, studying it four hundred years afterwards, feel we are in the presence of men and women of wide understanding, large purposes, and grandeur of body and soul. Never does it occur to us that these expressions of the artist's highest conceptions are but lines and masses of color on a wall of plaster.

To come in contact with Michel Angelo's work is to gain in strength of purpose, seriousness, and in the appreciation of the obligations of life.

Filled with deep emotions, Handel wrote the Messiah, and the musical thoughts, fitting themselves to the immortal phrases of the Bible, came faster than he could transcribe them. So perfectly does the music express his understanding of the message of the words, that all who sing it have communicated to them his conception of the glory of the Lord and the wonder of His birth. Such music develops reverence, fervor and faith.

Corot steeped his soul in the charm of happy nature; his brush seems dipped in peace and light heartedness. The joy of the early morning is his. We look upon his pictures and we love the best in nature and share her happy moods. Corot has communicated to us a strong moral influence in supplanting dark malignant thoughts with bright, inspiring ones just as truly as if his canvass had been devoted to a conventional religious subject. We need never be afraid of anything Corot gives us.

But, unhappily, not all men, who have feelings and can communicate them are moral. Much music and much plastic art, if not communicating distinctly immoral feelings, express that which is trivial and unworthy our

time; they attract our attention and hold it to exclusion of things of value to our inner life.

Since total depravity or bestiality is by nature material in its scope, it seems not to express itself in music, which is adapted best to express the abstract emotions. We recognize its low form most certainly when it is associated with low words, and because of a certain style of music being associated in our minds with low words, when we hear the same style without the words, we have communicated to us the same low emotions.

A person, who values his self respect, should not be guilty of singing words which for any reason he would be ashamed to speak to another person; and no one should be tolerated in the schoolroom, who will either teach or allow to be heard or sung in that schoolroom, songs of a low nature.

The worst that can be said of much music is that it is trivial—full of cheap or mawkish sentimentality, or that it expresses nothing new, neither does it express anything old in a new way; therefore, it wastes our time and energy. Right here, I should like to protest against the thousands of records of low and trivial music that are being scattered over the country by the phonograph companies. Where the public schools are strong in music giving the children the opportunity to hear and to learn a large quantity of a high standard, the harm of the bad music in the home is counterbalanced. The mass of growing children choose the better music every time if given the opportunity of choosing. I have seen it exemplified over and over again. The low music and the mawkish music is admired by people, who have had no chance to learn and to hear a high class of music in their youth. What can be done in this matter in the many districts where music is not taught by conscientious teachers, and perhaps not taught at all?

Now, I want to give all honor to the immense field of fine music offered by the leading phonograph companies. The phonograph has possibilities hard to equal musically, and in an educational way, in the small towns where without it, the people can seldom, if ever, become acquainted with any great works of this art.

I wish every school in the great state of North Dakota could have a good phonograph to supplement the vocal work of the school and to familiarize the children with great orchestral effects and the rich clear voices of the great singers. These records cost the companies immense sums of money—and of necessity must be sold at a higher price. For this reason many people do not even listen to them to learn whether they want them or not, but becoming saturated with the lower kind are content to continue in it. The lower taste is fostered by the companies for a purely commercial reason. The greater profit from the low class music. This influence is so far reaching that all moral educational forces from one end of the country to the other should study means to combat it.

Pianola pianos and all mechanical piano players now put within our reach beautiful music that heretofore only professional artists could furnish and they—only after years of patient study and unremitting practice. When the lines marking expressions are followed the pianola plays with fine effect and may be used with distinct success in establishing a love of good music. The serious non-religious music as well as the religious music of

all the great composers is moral in tone and eliminating what has been described there is nothing to fear in the bulk of common music; only we should be careful not to appeal too much to the physical sides of our natures in an overbalance of music with exaggeratedly strong rhythm or crash of sound. Ragtime music belongs to this class.

Much has been said lately of the immoral influence of the music of Richard Strauss; but it seems from hearing his music from orchestra without the stage effect that the immoral phase lies mainly in the words and actions on the stage. W. S. B. Matthews, a music critic of insight and discrimination has called Richard Strauss a big music bluff. Big bluffs rarely do very much harm either to themselves or to anybody else.

In the plastic arts grossness is so perfectly evident that there is little excuse for coming in contact with anything distinctly degenerate. But as wealth and a growing appreciation of beautiful surroundings leads to a more lavish buying of works of sculpture—I want to plead for a careful discrimination in buying the reproductions of even great classic art. The question in deciding the desirability of work of art with which one is to come in contact day after day is, what is its influence upon the feelings? The feelings it communicates repeated whenever I come in contact with this piece of art will become distinct emotion—emotions coming again and again will become a mood—and moods enter largely into the determining of character.

I can conceive of no more refining influence than contact day after day with that matchless masterpiece in sculpture, the Venus de Milo—broken and marred tho she is—she stands the embodiment of the greatest qualities of mind and heart in womanhood. It is the expression by the artist of a character to which we would unhesitatingly turn in all things knowing that we should find sympathy in time of sorrow, strength and wisdom in time of need, comfort and help in pain, happy comradeship in joy. Her calm gaze looks away beyond you, she is concerned with some sweetly serious question, and she knows not even of the existence of these great crowds of people who travel across desert wastes and tossing oceans to study the message she carries from the unknown artist to the world. The Winged Victory of Samothrace, also scarred and broken arouses every soul that sees her to action—rescuing, leading, encouraging on, on to something worthy. We do not need her face to know she could not stoop to meanness. The Hermes by Praxiteles is noble. We do not know whether these marbles are clothed or not. We do not think to ask. The message is not from body to body it is from soul to soul where the physical drops away like a dead leaf and is accounted of no more worth.

But turn to the Venus de Medici—beautiful? Yes—with a physical beauty that enchants you with the perfection of bodily proportions—gracefulness of line and delicacy of pose—you are moved to reach out and touch her satiny skin. But what other message than beauty of form and finish is there? The face is pretty. Would you ever think of applying the adjective pretty to Venus de Milo? The face, the attitude, the whole work in Venus de Medici is self conscious. In her, there is no interest higher than the physical. Her feeling of her lack of clothes forces itself upon you and when you recall her to mind that is what you remember. Such is the message from the artist's soul to yours. The Venus de Medici belongs

to the decadent days of Greece when artists' souls reflected the insincerity, affectation, and frothy unstability of character that betokened the downward course of a great people. The Apollo Belvidere is the companion in this art of the Venus de Medici—he is carefully posed for effect on an audience. His hair is artificially curled—you would call him perfectly groomed—Vanity is his message. Beautiful? Yes but merely to look upon now and then not to live with.

I cannot leave this subject without a word concerning the moving picture show. Way-laid one evening at a railroad junction a short time ago and noting the streams of people making their way in one direction as tho to a circus, I enquired where they were going. They were going to the picture show. Picture shows are in my line, and out of curiosity as to what this particular show would represent (for I had seen the like before) I followed, and had a hard time to get inside the door so great was the crowd, and fully one-half were children. In fact family parties seemed popular. The thing was a lurid piece of slow music full of sentimentality, not sentiment, called "The Face on the Bar Room Floor." The loathsomeness of drunkenness and the writings of final death were all thrown on the canvass. The intention of the thing was evidently good—to show the horrors of a vile life—but most of us believe it is not necessary for the mind to be smeared with mud in order that it may be horrified into cleanliness. Love of cleanliness is a better moral force than the negative hate of filth. The next feature of the program was a series of pictures showing "The Mountaineer's Honor." Perhaps some of you have seen it. In the course of the play a pretty mountaineer girl is led astray by a smooth stranger who is shot by the brother of the girl. The brother is in turn shot by his own mother to save him from the hangman's noose and the girl, the cause of all this misery, after an affecting (?) love scene with a discarded lover leaves the stage with his arm about her, and the suggestion that they will go away to some other place presumably to live. The evening was half over. My mind was full enough of such trash? I left. Now here is another place that moral forces must band together to combat the degenerating effect. If only grown people saw it, I should say they were seeking their own level of mind and as the mind was already formed it was too late to save them. But the children who flock to these halls are making their minds' level and I feel that nothing said can be too strong in favor of either reforming or closing these places.

There is a new machine by which works of art may be shown to our public school children without the expense and inconvenience of lantern slides. It is called the projectroscope and will throw on a screen an enlarged picture in black and white or in colors from a mere photograph or postal card. Unfortunately it cannot be used very successfully with any other light than electricity, but in towns that have an electrical plant the reflectroscope should be used giving our country children the advantages of contact with the beautiful things heretofore not within their reach.

When we bring great art to them let us bring it in such a way that when trouble comes as it must come to all art shall be a "city of refuge" for tempest tossed souls. S. Wier Mitchell says "Never is man his own master, till, like the centurion with his soldiers he can say to joy 'Come' and to grief and anxiety 'Go' and be obeyed of these. There is only one legitimate

way to get away from our own thoughts and that is by losing ourselves in the thoughts of others. The thoughts of others perfectly expressed we call art. By the right use of art man may become master of his joys, his griefs and his anxieties. This makes for morality. Art fosters the imagination. If the trend of art be kept upward, thru the imagination art will continually build up a higher and higher moral conception until at last in the passage or eternity men will reach that happy city "of God's saints, that sweet and pleasant soil in which no sorrow can be found, nor grief, nor care, nor toil."

THE PLAYGROUND AS A FACTOR IN HEALTH AND EDUCATION.

COUNTY SUPERINTENDENT MINNIE J. NIELSON, VALLEY CITY.

"The boy without a playground is father to the man without a job." Why all this ado about playgrounds now days? Why? Because the value of play in the development of children is being more and more universally appreciated. We ask "Why have playgrounds?" We might as well ask "Why does a flower need light?" The child must grow. Play is growth, therefore the child must play. He needs a playground because his growth is thru activity.

What useful object does play accomplish? It has been briefly answered thus, "Play builds the child. Muscles are developed by use. So also of the heart and lungs and other organs, even the bones. So also of the mind and character. Play is nature's prescription of the activities that shall form the child. It is her method of making him a man. The child plays for the same reason that the grass grows or the flowers spring up; for the same reason that he is here at all."

Hall says "Play is the motor habits and spirit of the past of the race persisting in the present as rudimentary function of and always akin to rudimentary organs, thus in play we rehearse the activities of our ancestors back we know not how far and repeat their life work in summative ways. The pleasure is always in direct proportion to the directness and force of the current of heredity."

The form of the games of the present time may be new, but the elements which compose the games and from which the children derive their pleasure are as old as the race. Clark W. Hetherington of the Playground Association puts it in this way, "These pleasurable elements of the game represent in a general way the occupations man has pursued at different stages of his evolution. For example in the 'Animal Stage' comes *Imitation*. People have always called small children little monkeys. This is because children like monkeys imitate all that they see. Imitation is the fundamental characteristic of their games. They act out the lives of the people around them and the stories they hear. Also under the 'Animal Stage' comes *swinging, climbing, sensations of the feet*.

Some have thought that the pleasure of swinging is derived from the associations with the swaying tree top which linger in our nerve cells. The pleasure of climbing trees and hanging by the hands may be derived from the same source. There are a number of pleasures and elementary plays derived from the sensation of the bare feet, once a valuable guide in the pathway of life. Children love to go bare footed, to play in the mud with their feet and to wade in shallow water.

Then comes the stage of 'The Savage Man.' Under this head we have Elements derived from the Chase.—Hunting and fishing are still pleasant. Boys like to go on tramps, to build shacks in the woods, to build fires, and go camping, chasing, and fleeing, of which 'tag' is the most direct descendant, but which enters into most games. Running is more fundamental and

ancient than any use of the hands or arms, and has a much greater effect upon organic development.

—Hiding away and finding, as in 'I Spy.' An interest that develops early and enters into many games of small children,— and pleasures that are not games as in finding hens' eggs, birds' nests, etc.

—Throwing missiles and dodging or catching them. Boys derive pleasure by throwing at a mark, especially at a live one, as at the man who sticks his head thru the screen at fairs.

—Striking with a stick. This is an element in all ball games.

Under the head of 'The Savage Man' we have, beside these elements which have been derived from the chase,—*'The Art of the Savage Man'*—Drawing, painting, picture-writing, and the work of the savage woman. Women have given us almost nothing in the form of games. The nearest she has come to it is in the basketry, pottery, and weaving which now forms the constructive play of the playgrounds.

Next comes the third stage in the evolution of man,—*'The Life of the Nomad.'* Children have a fear, but also an almost universal interest in and love for animals, which are treated much like other companions.

In the next stage we find the *'Primitive Agriculturist'*—Children love to dig in the sand, make mud pies, and later raise flowers and vegetables.

'The Tribal Stage' comes next. Savage man was driven to unite with others, and savage families to hang together for protection against similar hostile combinations. Here loyalty was developed. All our team games closely approximate these conditions and derive their pleasure alike from the joy of the battle and the joy of the comradeship which accompanies it.

Many games have been handed down unchanged for hundreds or even thousands of years.

Beside the Physical Elements mentioned which compose the games there are also the Social, Mental and Moral Elements. Under the Social Elements we find—Competition, Comradeship, and Co-operation. These we will discuss later in this paper. Under the Mental Elements we find,—First, The joy of being the cause. This is one of the first characteristics to appear in the play of small children. They love to build up and tear down, to make a noise, or do anything where the effect can be seen at once. This is one of the main pleasure motives in work, but does not play a large part in games proper. We find second, under Mental Elements—Involuntary Attention—From its nature, play requires no effort of the attention, and in consequence secures a higher degree of concentration and more intense and prolonged activity than is possible in work. Third—A feeling of freedom,—Freedom is characteristic of the lives of birds and animals and of primitive man. It is the very life blood of play. Under the Moral Elements we find Pleasure which lies at the basis of conduct. It seems to be furnished us as an inner monitor to tell us what to do. Enjoyment arouses the mind and emotions and tends to put all their powers at our disposal."

The function of play then is to promote vigorous health, to promote nervous stability, to develop physical strength, to develop vital and functional strength and this is a far more important function than giving mere physical strength. Play does this because nearly all play involving the fundamental muscles of the trunk and legs causes a quickening of respira-

tion, of the action of the heart, of the perspiration, the health of the skin, and the strengthening of the stomach.

The function of play is also to promote friendliness and to promote morality. Play is a form of social conduct and is either moral or immoral, just as life itself is. Play prevents much mischief and vice by merely giving a healthful expression to motor restlessness and new interests to occupy the mind. On the positive side play has strong tendencies toward good. It strengthens the will. The muscles have been called the organs of the will and anything which tends to strengthen the muscles tends also to strengthen the will. Play requires innumerable choices which must be instantly executed. This tendency to instant execution of purpose is likely to prove a good moral adjunct. Vigorous play teaches determination as almost nothing else can. Another strong tendency toward good which play has is that its choices are made under conditions of freedom. The child in the house and at school is under direction; but the child at play makes his own choices. Play tends to be pursued with all the might, and hence to unify the mind. Play promotes loyalty.

George E. Johnson, Superintendent of the Pittsburgh Playground Association has summed up the question well in these words, "In the long process of race development every organ and instinct with which a normal child is born has been tried and found good, has been refined and passed on, and some yet higher function, some yet nobler conduct shall spring from their roots. Not in the school but upon the playground can these deep instincts of workmanship, imitation, rivalry, co-operation, find their true and genetic expression and build more stately mansions in the soul as the swift seasons roll."

Now since people are awakening to the fact that play is as necessary to the child's development as school or work and that it is simply a part of nature's law of growth as natural as that buds should unfold or that leaves and flowers should turn toward the sun, the town or city that does not provide a place for its children to play does not provide a place for its children to grow up without very likely coming in conflict with the law. Time was when children could play on the streets with comparative safety, but in these days of rapid transit—street cars, motor cycles, and automobiles the child is not safe on the streets. Where then can he play? You may say we need not worry over that in North Dakota, there is plenty of room. If any of you have recently been learning to drive an automobile you have doubtless had the fact brought forcibly to mind that the children even in our small towns do use the streets for playgrounds and the sidewalks for a skating rink and coast-way. When you stop to consider, you realize that the vacant lots are rapidly disappearing, the school-yards and residence yards are small, so that where have the children, even of our small towns, a place to congregate but the streets. To remodel a city is expensive. The necessities should be planned for in advance. Is it not surprising that school boards especially in the new towns where land is cheap would build a school house without ample playgrounds? They do this because they do not realize the importance of the fact that the real life of the child is lived not in the school room but on the playground. They do not realize the words of Dr. Woods Hutchinson when

he says, "The playground is the chief field for the development of body and mind; of training for social life, for organization and combination with his fellows," and he goes as far as to say, "Better a playground without a school house than a school house without a playground."

It behooves us to arouse public sentiment in this matter and see to it that playgrounds are secured in our new and developing state, before land is any higher. Cities should avoid the errors and observe the experiences of the past. Our great cities have been forced to expend millions when thousands would have been sufficient years ago for playgrounds. Even in our small towns history has repeated itself. The school authorities in the town in which I am most interested have recently purchased almost the entire double block adjoining their school buildings and moved off houses and barns at a much greater expense than it would have been a few years ago, still they realized that they must have playgrounds and the price of the lots would not decrease, therefore they must "Do it now" and they did, we are glad to say, and are equipping those grounds with good apparatus.

School Officers, School Teachers, Citizens and Parents, give the boys and girls a chance to play.

"Give them a chance for innocent sport,
Give them a chance for fun,—
Better a playground plot than a court and a jail
when the harm is done;
Give them a chance,—if you stint them now,
tomorrow you'll have to pay a larger bill for darker ill; so
Give them a chance to play!"

It is not within the province of this paper to discuss the wonderful playgrounds which our cities all over the land are establishing.

I wish time permitted to review the progress made in the playground movement. They say the proof of the pudding is in the eating. There is abundant testimony to prove that the playground is accomplishing the things claimed for it in this paper:

Theodore Roosevelt says of the ten million dollar playgrounds of Chicago, "They are the greatest civic achievement the world has ever seen." "The playground has become the best school for the conservation of the 'square deal' in personal and social relations."

It is not within the province of this paper to discuss the organization and direction of the playground. Suffice to say since we believe that the real character building of the child takes place in his playtime we believe supervision of the right sort is absolutely essential. A supervised playground can maintain a high standard of fair play and of adherence to the rules of the game. If there is no director the child is likely not to learn self-control; it is only a matter of brute force, and the strongest child gets the piece of apparatus he most desires while the weaker ones are pushed aside. By having a supervisor who understands child nature, in such a case, these two advantages are gained—the child learns to govern himself and the weaker ones who need the exercise and who under the system of the survival of the strongest were crowded out are thus given a chance.

Directed play means a spreading of athletics from a few specialists who need it least to all the children including the weaker ones who need it most.

In school the child is a restricted being, he is a scholar not a natural animal, but on the playground all his true characteristics come out. For several summers it has been my pleasure to camp for a week with my Sunday School class of boys. These boys are from the first two years of High School. We rented a cottage by the lake and lived in the woods and on the water with nature. These outings have been a revelation to me. They have forcibly impressed me with the opportunity afforded the playground teacher for real character building. There the boys showed their true natures. The various characteristics of generosity, selfishness, etc. came out plainly. Would that every teacher could know her pupils on the playground. It would work both ways,—help the teacher as well as the child.

This matter of playground supervision is as essential for the rural school as for the town school. The rural teacher should be trained in games. True the country child has plenty of room to play, but there is a dearth of knowledge of games in our rural schools. Instead of the teacher spending her time at recess buried in examination papers, let her be out with the boys and girls and live with them.

Quite generally the necessity of play for children is being recognized. "But," says Dr. Gulick, "the play spirit demands its recognition thruout life. The need of developing a new country has taught us the necessity of work. We have yet to learn the place of play and recreation,—not as individuals, but as social units—for we do not live as individuals, but as parts of a social whole. We have welcomed the influx of the peoples of the world coming to us and carrying the burden of our work. We have failed to recognize or help them to retain those national or racial customs which are necessary to a wholesome people. One of the most keenly sought for enjoyments of those who visit the old countries is to watch the people on their holidays, holidays that are marked by the national dances, which are the most common form of art available to all people. And yet we ourselves here in America have the same elements, the same human feelings demanding expression, the same occasion demanding adequate celebration, but no form of social habits which enables us to give suitable expression to them. Our poverty in this direction is indicated by the inadequacy of expression in our people when they come together for some special celebration. There are fireworks, but for most there remains nothing to do but to parade the streets in a hopeless tangle and chaos of people. We have few and inadequate social forms by which to express our feelings."

The playgrounds in our large cities are for old and young. The promoters have recognized the need of the play spirit thruout life. The motto is "Something for Everybody." A recreation house is a feature of the plan. In Chicago a great play festival was held in which large groups from the various peoples of that city came together, each giving its folk dances, thus expressing "the ties which bound them to their own past" as well as uniting with the other citizens in their civic unity.

Why not have a "County Play Day?" For two years in our county we have had a "County School Athletic Meet" or "Field Day." It has proved a good thing, but is not broad enough in its scope. Those participating

are limited to the successful candidates for the events in the preliminary group contests. Why not have a play day for the old and young of our cosmopolitan population! A veritable Gala Day. Our rural people live such a hard work-a-day life raising wheat to sell to get more money to buy more land to raise more wheat that they have failed to see "that the maintenance of habits of joy and happiness are as important for normal life as are habits of thrift and wholesome work." We are told that our city playgrounds with their possibilities for child and parent are blending and harmonizing our diverse population and developing them into one people with common associations and traditions and a spirit of national unity, competent for self government.

The playground movement is the answer to the fundamental need of human epoch-forming element of human history. It consists of the recognition of the fact that life while absorbing nourishment for both body and soul from without really develops from within."

It is not a special problem for those of the north, south, east, or west; the rich or the poor; for those who live in the city any more than it is for those who live in the country.

The playground movement is the answer to the fundamental need of human nature, the importance of which is being peculiarly emphasized by the present epoch of human progress.

DEPARTMENT OF
HIGHER AND PROFESSIONAL EDUCATION.

THE OLD AND THE NEW EDUCATION.

PROF. M. A. BRANNON, STATE UNIVERSITY.

Any discussion of this topic implies an effort to define education and to compare the past and present expressions. There have been innumerable efforts to define the term. Education has furnished the problems for countless state, national, and international conferences of scholars; it has supplied subject matter for libraries; it is the field of activity in which an army of students and teachers are engaged. It is small wonder then that so complex a thing should develop a diversity of definition and opinion in every age and class of men. Huxley defined education as being "instruction of the intellect in the laws of nature, under which name I include not merely things and their forces, but men and their ways; and the fashioning of the affections and of the will into an earnest and loving desire to move in harmony with those laws. For me, education means neither more nor less than this. Anything which professes to call itself education must be tried by this standard, and if it fails to stand the test, I will not call it education, whatever may be the force of authority, or of numbers, upon the other side." President Butler of Columbia says that education "must mean a gradual adjustment to the spiritual possessions of the race. Those possessions may be variously classified, but they certainly are at least five fold. The child is entitled to his scientific inheritance, to his literary inheritance, to his institutional inheritance and to his religious inheritance. Without them he cannot become a truly educated or cultivated man." It will be observed that both of these definitions call for acquisition of knowledge and the exercise of intelligence in the use of that knowledge. Neither of these definitions limit education to *college education* alone. Both views are modern in holding that education is a process of development; and they both imply that the results of education may be termed, as some express it, an attitude of mind towards truth, beauty, and holiness. The two definitions referred to are unquestionably descriptive of what is meant by the new education. Each shows the influence of evolutionary teaching, which has been an effective agent in developing the so called new education.

The old education was based upon the theory that education consisted in gaining an acquaintance with the "has beens" in human thought and action. These "has beens" of the human race were embalmed in dead languages, placed under the religious care of the church and served to guide the thinking of each generation. It was perfectly manifest that such a view could not result in great progress in training men and extending the bounds of human knowledge. It seems to me that the old education was expected to give static results, while the new may be looked to for dynamic returns. There are certain worthy elements in common which should be examined and emphasized in the education of our day. It shall be the purpose of this paper to indicate some of the points that are common to both and peculiar

to each; and to show why we need to emphasize them in the schools and colleges of this commonwealth.

The old education ranked high in disciplinary training and results. By long usage it had become so refined that it was possible to determine almost exactly what work had been performed by every student. Equivocation and evasion were difficult in the recitation room of any first class instructor. Definite performance in mathematics and languages, in history and philosophy were easily obtainable. It is true that written exercises might be cribbed and the "pony" could be used in preparing translations. However, it was genuinely difficult to escape personal, individual tests in class exercises where original problems and analysis of the text constituted the subject matter of the quiz. It followed, therefore, in the old education that definition of quality and quantity of work and personal effort were the rule and not the exception. Of course there were loafers and "weary willies," but the pathway to college exit was clear and sure, provided the authorities were not foolishly lenient. Education under those conditions savored strongly of the intellectual and moral discipline which characterizes our military college at West Point today. In those times there was lacking the subject matter known as natural science studies; and there was lacking too, the laboratory exercises and the scientific lecture. Consequently there was not the element of interest in the former days that we find in our modern education. The absence of this work constituted a severe indictment against the old conservative education. The case was brought into the court of reason, and the contentions of the disciples of the new education were maintained. The danger of winning a case is that we regard the results as final, and finality means death. It has seemed sometimes that the devotees of the new education have not been wholly appreciative of the sturdy, disciplinary features which characterized the old. In so far as fundamental principles have been neglected, so far the new education, enriched by a study of natural science, has failed to perform the important service of giving actual discipline. We are not contending nor condoning the weaknesses of past and present education. We need to be definitely aroused to the necessity of emphasizing in the new education the good and all important service of discipline which was secured under the old regime.

Another function of education which was strongly marked in the olden days was the development of analytical powers so that the educated man was characterized by clear, sustained, and related reasoning. The obligatory study of logic and philosophy did much to clear out the cobwebs from the juvenile mind. The multitudinous and nerve racking schedule of modern college days has taken the place of the simpler and more consecutive routine provided by the old education. In those good old days athletics and numberless societies did not compete with the principal activity of diligent and reasoning study. Then there was time for reading in the library, careful preparation for debate, and a very moderate amount of social activities. Much of this has changed today, and in its place has come a schedule requiring feverish haste in meeting numberless engagements, and followed by the attendant results of reaching half-formed conclusions and failing to develop the reasoning powers to the degree that is properly expected from a thorough, cultural course of study. In my judgment it would

be wise if the new education could slough off a large percentage of its multitudinous organizations which are concerned with the by-products in modern education. As of old, so today we must recognize that the development of strong, reasoning powers is possible only amid activities which are reasonably strenuous and long continued. In this way only was it possible in the old and in this way only will it be possible in the new to realize Mr Huxley's product of a liberal education. This individual, you will remember, is one "whose intellect is a clear, cold, logic engine with its parts of equal strength and in smooth working order; ready like a steam engine, to be turned to any kind of work, and spin the gossamers as well as forge the anchors of a mind."

The first concerns of the old education had to do not only with discipline and the development of reasoning powers, but it was mightily concerned in endowing its youth with an appreciation of truth, beauty, and virtue. This appreciation was gained by a study of literature, art, and music. Many factors enter into the masterpieces of literature, but surely the qualities of beauty and truth are never lacking. On the contrary, they are exalted and glorified. What is true of literary products is pre-eminently true of art and music. The first appeals to the sense of form and color, and the second operates through tone and harmony. The contributions of the old education to the world's ideas of beauty and truth through the handmaids—literature, art and music, have never been adequately acknowledged. Great ideals were clearly defined, and intense emphasis was placed upon the endeavors to attain unto the ideals.

The new education has contributed one other agency which ought to be especially effective in developing an appreciation of beauty, truth, and virtue, the acknowledged eternal versities of culture and learning. This new agency is, of course, the study of nature—infinite in variation and yet harmonious in entirety. In reality, this contribution of the new education offers a field for concrete expression of many of the abstract truths found in literature, art, and music. In this field where the concrete appeals to man's appreciation of beauty, truth, and virtue, there is continual evidence of law and a law giver. It is no mere assemblage of idle words to say that the student of the new education may "look up through nature to nature's God." Of course in this new and concrete field of study, it is necessary that clear and concise and repeated expositions of beauty truth, and virtue be given. Man seems to have inherited, from the long past, the tendency to ignore truth and beauty and virtue, even though they lie in his very pathway. It follows therefore, in the new education as in the old, that constant and severe drill is necessary. One may as well expect the development of disciples of beauty, truth, and virtue when indifferent or poorly organized instruction is given in literature, art, and music, as to expect the development of an elementary appreciation of these everlasting qualities in students who give inadequate and fragmentary attention to the study of nature. In both the old and the new, diligent study is required if a race of really appreciative disciples of beauty, truth, and virtue is to be grown. Of such so trained, it may be said, "his mind is stored with a knowledge of the great and fundamental truths of nature and of the laws of her operations; one who, no stunted ascetic, is full of life and fire, but whose passions are trained

to come to heel by a vigorous will, the servant of a tender conscience; who has learned to love all beauty, whether of nature or of art, to hate all vileness, and to respect others as himself."

Thus far in my discussion there has been an effort to show that the primary fruits of education in both the old and the new are mental discipline, development of clear and set reasoning powers, and a lively appreciation of truth, virtue, and beauty. One who has come into possession of these fruits may be said to have had a liberal education. One who possesses these may truthfully be said to have cultural education. The old education, I think, emphasizes Mr. Arnold's definition of culture, which he defined to be "a knowledge of the best that has been said and thought in the world." A product of the new education should have culture in the sense that Mr. Huxley used the term when he declared that "perfect culture should supply a complete theory of life, based upon a clear, knowledge alike of its possibilities and limitations." It has been further jointed out that the new education was more dynamic than the old because it was dominated by the principles of evolution, and added the study of nature to the list of subjects which must be studied in order to acquire liberal culture. It has been emphatically stated that the new does not differ from the old in requiring rigid and constant adherence to all the pedagogical principles involved in training the scholar. It has been affirmed that there is need of truly mastering the principles set forth in the subjects of the new because discipline and keen analytical powers were obtainable only in mastering the subjects contained in the curriculum of the old. While there is the added element of interest which comes from an intelligent study of nature, there is also a peril arising from the fact that superficial enthusiasm of the mysterious phenomena in nature may be confused with a clear understanding of the laws expressed by those phenomena. In view of these and other difficulties which beset the progress of modern education, such as our multiplied student activities and a very general tendency to substitute the by-products for the main products of education, there is an increasing need of personal supervision of the students enrolled in the normal schools and colleges of this state. It may be that we cannot approach, and if we could perhaps it would be unwise, the preceptorial system adopted by Princeton but it is possible and it is wise that we include as an essential feature of our educational work the element of personal contact by the teacher and every student that comes under his instruction. In this way, as President Hyde of Bowdoin expresses it, "formal barriers are broken down; individuality is recognised; and teacher and learner touch each other through the common contact with the subject taught."

Investigations have been carried on at some of the larger institutions to determine the efficiency of instruction. It has been surprising to note the hiatus which separates the teacher's and the student's ideas of the amount of work required in each subject studied. It was generally believed by the instructor that twice as much time should be spent outside the classroom as was required by the course in the class room, but the investigations revealed that the students were giving only about one-half the outside time expected by the instructors. The committee reported as follows: "the average amount of study was discredibly small." A correction of this

evil in the new education was sought through more rigid quizzes, more constant attendance, more precision in work on the part of the students. These endeavors were followed by more work on the part of the students but "not enough to get excited about" according to President Wilson of Princeton. There is unquestionably, therefore, need of emphasizing scholarship—a scholar that is broad, deep, and thorough. Association meetings of this sort and all others need to realize that the chief function of the new as well as of the old education is to teach students to think—to think "clearly, consecutively, comprehensively, and with continuity," as President Thwing puts it in his letter to the college boy.

I suppose that the written subject matter of our programs amounts to comparatively little. I imagine that our papers are rarely read by any other;" that the society idea and not the individualistic dominates the together in the annual educational meeting is derived from the inspiration of collective, sympathetic ideas. We feel that we are "parts one of the other;" that the society idea and not the individualistic dominates the work of education. We learn more fully that education is a complex process, carried on within and without lecture rooms and laboratories, that it is a great civic process, and that our share is large or small in so far as we direct the activities committed unto us toward public service and society's welfare. This we shall do if we rightly utilize the best of the old education in judiciously and diligently developing the new, so that it will fit the age in which we live, always advancing and never reaching finality—the equivalent of death.

WHAT HAS BEEN THE INFLUENCE OF HIGHER INSTITUTIONS OF LEARNING UPON THE DEVELOPMENT OF VOCATIONAL EDUCATION?

J. H. WORST, PRESIDENT, AGRICULTURAL COLLEGE, NORTH DAKOTA.

Frankly speaking, the higher institutions of learning have been, in the past, rather opposed to vocational education. Such training was viewed in the nature of an innovation and inconsistent with established educational ideals. The end sought was considered unworthy an art that so long and so exclusively had ministered to the hereditary governing class, more especially for the defence of the church and the service of the state. However, in more modern times the learned professions and the leisure class desiring an "education for education's sake" became the beneficiaries of higher institutions of learning, especially in this country. The high antiquity of formal education with its traditional formulas and symbols, after which we patterned, naturally precluded the introduction of utilitarian subjects that should train men for vocational efficiency.

Not until the passage of the Morrill Act of 1862 did the illuminating discussions, preliminary to its enactment, awaken the public to the fact that no collegiate training existed in this country for the higher education of the industrial classes as such, and likewise that no elementary vocational instruction was provided for American children. Nor was this lack of provision an oversight on the part of educators and educational institutions. Vocational pursuits were not deemed of proper rank to aspire to general or special educational training. The founders of our educational system patterned quite largely after the Grecian ideal, which was cultural, rather than after the Roman, which was practical. "Indeed, the serenity, harmony, and poise of the Greek ideal," says W. H. Payne, in the *Universal Encyclopedia*, "presupposes an almost entire exemption from industrial pursuits, and seem adapted to beings leading to a purely contemplative life. In order that arithmetic may serve its highest purpose, Plato expressly states that it must not be taught for commercial purposes, as to shopkeepers and merchants. This type of education has persisted through the ages, and has a clearly marked place in the schools of today.

The classics, the belles-lettres, history, music, and art are humane studies and the general pursuit of the sciences is best defended on the ground of their cultural value—they interpret nature for purposes of contemplation."

The incidental needs of a man as a workman or instrument had but little significance among the Greeks where slaves performed the manual labor. Accordingly, building so exclusively upon the cultural type of education, when courses of study were established for our common and secondary schools, the purpose was to lay the foundation for the higher or liberal education rather than to prepare pupils, even in a measure, for industrial occupations. In general, our public schools have been consistent with the cultural or humanistic idea and held persistently to courses of study adapted to the requirements of the "learned professions."

ECONOMIC CHANGES

During the last half century, however, the social and industrial conditions in the United States have undergone radical changes. Doubtless because of these industrial changes, the purpose or mission of the public schools, in certain localities, has undergone changes no less radical.

The establishing of evening industrial schools in many of the large cities and the endowment of numerous private institutions, such as the Ohio Mechanics Institute of Cincinnati and Cooper Union Institute of New York gave the first real impetus to industrial education. The large patronage these schools enjoyed and the obvious benefits they conferred upon young men ambitious to better their condition, even though but little technical training was offered, should have resulted in the earlier general introduction of vocational training in the public schools. The demand for "hand work" as well as "head work" in the schools, however, grew steadily stronger until manual training was introduced into many of the secondary schools in the larger cities. The propaganda for industrial education which thus gradually assumed popular form was the result of private initiative and philanthropic endeavor rather than a spontaneous movement on the part of higher institutions of learning.

In many states the practice of the public schools is still behind state legislation on the subject. Professor Elliott, of Wisconsin, observes that: "Were speculation permitted, it would be to express the opinion that the further development of public industrial education is dependent upon state initiative and state subsidy. The problem of education for industry calls for more social power than the average American community is able to contribute." In other words, many influential educators are not even now in hearty sympathy with the propaganda for industrial education.

WASHINGTON UNIVERSITY

Washington University, St. Louis, was first among the prominent higher institutions of learning to recognize the importance of industrial education. This progressive institution opened classes thirty years ago and the introduction of manual training followed somewhat rapidly in high schools within a restricted area, but many of them organized the work, as before stated, under private foundation. Manual training, however, did not begin to reach the elementary schools until about twenty years ago. The National Society for the Promotion of Industrial Education held its first session in Chicago less than three years ago.

Naturally, in the large manufacturing centers, manual training or trade schools first assumed popular form which, in one form or another, has spread quite generally to the high schools and, in many instances, to the elementary schools of certain communities.

For many years, it will be seen from the foregoing that vocational or industrial training was confined to manual exercises or "shop work" and was largely patterned after the trades schools of Germany and other European countries.

The evolution of vocational training, though gradual, has, nevertheless, grown steadily and broadened with its growth. It is in reality a protest,

on the part of the working class, against the "curricula" of the elementary schools which lays its chief emphasis on subjects of general cultural value, none of which touches in any direct way the industrial environment of the pupil. It was not expected, by those introducing industrial subjects that the vocational training offered in the public schools would turn out a finished product, but that it would turn out the *material* for finished workmen, or at least start young men toward productive instead of non-productive pursuits. Fundamental principles were to be taught instead of trades. The public school was to start the boy toward the shop or farm instead of away from them.

THE PAST IMMATERIAL

In this brief outline bearing upon the rise of industrial education, no attempt has been made to be elaborate or enter into details. That phase of the subject at best is immaterial. Today we face the present and future, and the serious question that confronts us is not so much what has been, but what will be our attitude toward vocational education, in *North Dakota*?

Right here I will take the liberty of departing from the specific subject assigned me and discuss a phase of it which, to my mind, is infinitely more important.

What forms of vocational education are adapted to the needs of our state?

This question should not be difficult to answer. A state so overwhelmingly agricultural in its character should give relative emphasis to elementary agriculture in her public schools. And in view of the universal importance as a factor in our social and industrial system. while manual training should, in addition, be encouraged, especially in all the city schools. Each should receive attention in proportion to its prominence as a factor in our social and industrial system.

ELEMENTARY AGRICULTURE.

The propaganda for the introduction of elementary agriculture as a vocational subject is of recent date. This comparatively new aspirant for recognition in the public schools, both elementary and secondary, is daily growing more popular in those states and localities where it has been introduced and taught by competent instructors. Its introduction in the course of study is considered a sound social and economic movement. Any state, especially any agricultural state that neglects it must be regarded as a back number in educational progress. We have too long been educating in the interests of those engaged in the distribution of wealth and neglecting education that has a bearing upon the production of wealth. "While states, cities, and individuals have contributed scores of millions of dollars in the past decade or two to the creation of general schools and colleges and to the establishment of libraries, only a trivial amount has been expended on the education of those hands and eyes which have contributed the larger portion of the country's growth in wealth and general prosperity."

Herbert Spencer said truly: "The increasing acquaintance with the laws of phenomena which has through successive ages enabled us to subjugate Nature to our needs, and in these days gives the common laborer comforts which a few centuries ago kings could not purchase, is scarcely in any degree

owed to the appointed means of instructing our youth. The vital knowledge—that by which we have grown as a nation to what we are, and which now underlies our whole existence, is a knowledge that has got itself taught in nooks and corners; while the ordained agencies for teaching have been mumbling little else than dead formulas.”

A STATESMAN'S VIEW.

The vital necessity for emancipating the great business of farming from its lack of comprehension led ex-Governor Hoad, of Wisconsin, to ask: “What can we do to get the farmers of this continent to see the necessity of more intellect on the farms? How can we contribute as a force to help in the emancipation of the farm from the wasteful effects of ignorance, and help put in its place the energizing influence of knowledge? In other words, what can we do to promote wise legislation to this end? What can we do to arouse public opinion and the great educational forces of this country to the importance of teaching the elements of agriculture in the primary schools of the land?”

“Our common schools recruit the academy, the college, and the university, and they in turn recruit every profession but farming. Our young men flee to the towns and cities because we have educated them to do so. Nearly every European country is putting forth strenuous efforts to stay this tendency by teaching the elements of scientific agriculture in the common schools. It can be done as easily as the teaching of the elements of scientific arithmetic, or chemistry, or philosophy. A great host of farmers who were deprived of such teaching now find themselves barred from an understanding of much agricultural literature. As a consequence, they turn away from the agricultural college, the experiment station bulletin, and the farm paper, that is really worth anything to them.

Had these men been taught in the common schools the meaning of the terms used in agricultural chemistry, something of the principles of animal husbandry, something of the principles that underlie the preservation of fertility, they would be today in much more harmonious relation with all that constitutes agricultural progress.”

These are not the utterances of a visionary, but of a sensible, practical, statesman. They are replete with patriotic sentiment.

THE COUNTRY LIFE PROBLEM.

One of the most vital and perplexing problems that confront our nation today is that of country life. The soil in most states, and particularly in North Dakota, is the chief source of wealth. Its productivity and the conservation of its productive power must concern every citizen regardless of his place in society. If we would perpetuate our unexampled prosperity and, at the same time, conserve instead of waste our one great natural resource, such subjects as soils, fertility, plant life, animal husbandry, and farm management must be studied in the public schools along side of language, geography and arithmetic, and under instructors equally skilful and enthusiastic in their presentation. When required to do so, teachers will cheerfully qualify for this work. They have never yet failed us.

A large element of our most intellectual citizenship must take permanently

to the soil from choice rather than from necessity or as a temporary exploiting expediency, and the country home must and can be made as attractive and desirable as the urban home. It would signify a very low grade of patriotism, or stupidity, that would aim at less, in view of the relation which agriculture sustains to all other state interests.

Our general welfare demands, therefore, that the public schools contribute directly and concretely to the end that agriculture be popularized, by being placed upon a sounder intellectual basis. In other words, education *by means* of agriculture should be a part of our regular public school work; not even education *in* agriculture will suffice. An agency of such tremendous directing and moulding power as the public schools must not be overlooked or neglected, but must be invoked for the purpose of, vitalizing and energizing our dominant industry; certainly they must not exert an influence against it. In the language of Dean Bailey, of Cornell: "In an agricultural state, agriculture should be as much a part of its education as oxygen is a part of the air."

Naturally, this involves the problem of consolidation of rural schools and the enactment of suitable laws to properly organize the work. Are we prepared to make the venture? If not, why not?

No one will attempt to deny that upon the economic prosperity and social and intellectual progress of the farms in this state largely depends the future greatness of North Dakota. The desire to become enthusiastic and skillful farmers or scientific homemakers, therefore, should be encouraged in the public schools. The trend, especially of all our country schools, in a state like North Dakota should be toward Nature—toward the things that constitute the rural environment—toward agriculture.

Speaking to this point, President Henry S. Pritchett, of the Carnegie Foundation, says: "In this day, every nation must make of each citizen an effective, economic unit, and then must bring these units into efficient organization. We are today, in America, not doing this. We are not preparing our men and our women as they must be prepared to be effective, economic units."

MOVEMENT IN OTHER STATES.

More than a score of states, most of them quite recently, have made legal provision for teaching elementary agriculture and domestic science either in their public schools or in special high schools. North Dakota, however, is not listed among the number, doubtless because such subjects are permissible instead of being mandatory. Nevertheless, our higher institutions of learning and State Superintendent of Public Instruction are committed to the movement. The time for its active operation, let us hope, is not far distant. It will then only be necessary to thoroughly organize the movement and prepare teachers with the necessary skill and sympathy to present the work. This will require time and patience and *zeal*, but more than tacit permission or passive willingness is required to effectively incorporate the principles of elementary agriculture and domestic science in the public schools. The interests most concerned are relying upon the authorized educational agencies to arrange such plans and details as will secure positive results. Farmers, as a rule, are not conversant with the mysteries involved in making courses

of study and organizing educational systems. They always have and doubtless always will submit the educational destiny of their children to professional educators. While no one advocates making farmers or homemakers in the public schools, yet whether or not children will decide between country or city vocations depends very largely upon the attitude they develop in the school and inherit from the teacher. The tendency hitherto has been decidedly away from the farm.

For this type of work, teachers will never qualify in sufficient numbers until there is a positive demand for their services—a demand based upon legal requirements. We have tried the voluntary, elective, permissible plan now for a long time without encouraging results. The very fact that we make a subject of such vital importance merely permissible carries with it at least the suggestion that it is of no serious consequence. Other and less distinctively agricultural states have far outstripped North Dakota in adapting their educational ideals and courses of study to meet modern industrial conditions, especially in rural communities.

THE SCHOOLS

The rural school teacher should not only be in sympathy with this type of education but a strong factor in its successful introduction.

The country boys and girls living within a reasonable radius of a town or village and having completed the eighth grade work in the country school, all that is now provided for them, also should enjoy high school advantages.

Every high school receiving state aid, therefore, should offer courses of study embracing elementary agriculture and domestic science, with specially prepared instructors to present the work. The assisted high schools thus organized naturally will give equal emphasis to those subjects having a bearing upon rural and upon urban vocations and, at the same time, afford equal preparation for entrance to the University or to the Agricultural College for students desiring a collegiate education.

COOPERATION

This means cooperation, direct and feasible, between the secondary schools and the higher institutions of learning. It should result in the elimination of all institutional jealousy and prove to be for the betterment of the state's social, professional, and industrial organization. The welfare of the children and their proper and effective training for their life work, whether for professional or industrial service, should be our first consideration. The mere success or supremacy of an educational institution, as such, should be considered a very secondary matter.

To effect this cooperation, so far as college trained instructors are demanded, it should be recognized as within the province of the Agricultural College to provide a high school instructor to teach the fundamentals of elementary agriculture as well as domestic science. However, so long as no legal demand for such instructors exists, but few students will prepare themselves specially for this line of teaching. This arrangement will give both the University and the Agricultural College equal interest in the more efficient organization and inspection of the secondary schools, and will afford both city and country

children equal facilities for preparation for both city or country occupations, or on the other hand, equal preparation for entrance to the collegiate courses of the University or of the Agricultural College.

This free choice of subjects or courses of study is every student's right. By this arrangement, cooperation and harmony will be established all around and on a basis so honorable and so sensible that institutional rivalry will be reduced to a minimum.

HOW MAY THE WORK OF OUR HIGHER INSTITUTIONS OF LEARNING BE BETTER ADAPTED TO PRACTICAL LIFE.

W. M. KERN, PRESIDENT NORMAL-INDUSTRIAL SCHOOL, ELLENDALE.

At the outset of this discussion two fundamental questions present themselves. Unless we should agree upon the answer to these, it would be futile for us even to attempt to arrive at a harmonious working basis. The first of these questions: *What is the purpose of the college?* Why was it established? What is its work? And is the ideal for which it stands worthy our homage and admiration?

Primarily the college exists for service; to serve human needs; to serve mankind socially, and the broader and more generous this service the more worthy the institution to exist. It does not exist for the sake of those who administer it. They are simply more or less important incidents in the institution's career—they may come and go but the institution goes on forever. That it may exert the widest and most helpful influence its faculty should be democratic and endowed with democratic ideals. The college does not exist for investigation. Investigation must go forward in America more and more but the college, as ordained and constituted, does not exist for this purpose.

The college exists to teach; to give young men and young women, those whose outlook on life is most hopeful, the clarified results of all investigations, of all thought; and not only for the sake of the learning itself, but for the development of a sterling character which is always shown by an individual's work. President Hadley has said that "A college education is one in which the student learns *things* that he is not going to use in after life by *methods* which he is going to use.

Those who had the destinies of our colleges in their hands at the critical moments when their curricula were forming were theologians and they failed to see that if America was to be a land of action, the men who taught should be men of action, and that their themes should deal with modern as well as ancient life. While exalting the liberating influences of a college course it should not be forgotten that the student is to become an active unit in the social, industrial and professional life of the community. The student's life must take on a modern aspect. The education that aims at a mere serene enjoyment of the good, the true and the beautiful, is an anomaly in the modern world. The mere recluse has no reason for being and finds no welcome among occidental people. The educated man must take part in civic progress, must aid in the solution of ethical problems, must take his place in some vocation, fortunate if his vocation is his avocation; must exhibit public spirit; must do his share of the world's work and must hold and cherish ideals. He must be more than a mere sentimentalist. He must do something worth while and do it consecutively and persistently. In one of Frank Norris's novels of the characters, a sailor, is fearful lest his captain, having failed to reach the North Pole, shall take to writing books and lecturing. Speaking to the heroine he says:

"I wouldn't be so main sorry that he won't reach the pole as that he has quit trying. The danger don't figure. Nothing in the world don't figure; its his work. God a'mighty cut him out for that and he's got to do it. Ain't you got any influence with him, Miss? Won't you talk good talk to him? Don't let him chuck; don't let him get soft; make him a man and not a professor."

The college must do more: James Russell Lowell, speaking at the celebration of Harvard's two-hundred-and-fiftieth anniversary said: "Let it be our hope to make gentlemen of every youth who is under our charge. Not a conventional gentleman, but a man of culture; a man of refinement; with that good taste which is the conscience of the mind and that conscience which is the good taste of the soul."

A second fundamental question: *Shall the college train for vocation or for leadership?* It is the purpose of the college to offer such training as shall release and develop the mental, moral and social powers of the individual; that shall introduce him into a sort of miniature ideal world in which his views of life shall be broadened and his powers disciplined, or shall the college seek to train the individual for the work he is to do after graduation; work designed for his support and advancement? These alternatives present themselves. One would make the college a place of general culture and discipline; the other would have it a place for leadership, would release his faculties, would develop his power to organize, command and execute; the other would make him merely a servant. The leader must have generalship; he must know more than tools and processes; he must be capable of rapid and concentrated exertion in a broad field of opportunity; he must be able to plan, to adapt, to adjust; he must be able to handle men. No matter what his calling, his success in life will depend enormously upon his ability to get on with and handle men. For this, he needs a broad outlook upon history, upon human experience and human life. The mere servant need know only tools and processes and have mechanical efficiency. We need technical schools—very many of them; we need workmen in vast numbers, more of them than of foremen or master-workmen, but we need the master workmen and our colleges are destined for the men who are to rise in the ranks. No philosophy of life tolerates, in this day and age of the world, the mere bread-and-butter conception of education. The college must deal with the student as a man and not as a mere bread winner. Its general program should be of such scope and breadth as to cover the modern field of learning; industrial, social, moral; so that the individual may find himself and his place in the modern world. Above all, it must give that sort of culture, so essential in a democracy, which fits men to deal with questions involving the highest knowledge, the clearest insight and the soundest character.

Within these limits how may the work of the college be better adapted to practical life?

(1) *First, by doing things and doing them more thoroughly.* If the college is to be a place where the student learns *things* that he is not going to use, but develops *methods* that he is to use, then the ingraining of deep-rooted accredited habits is of supreme moment. Just here such

criticism has arisen. The experience of our Rhodes scholars is interesting as giving us a measure of comparative merit. Paul Nixon, Rhodes scholar from Connecticut, has to say: "The conviction is being pungently forced upon us Rhodians that in many respects the amount of information we have accumulated is not to be compared with that of the brighter of our cousins. It is a fact that, in general reading, the more studious Oxonian has us at his mercy; in every form of classical scholarship we are down and out." One need hardly remark that it is just this classical scholarship that our colleges have most emphasized and which they have exploited with the most vigor. "The ordinary American has heard such names as Murillo and Titian. He's an exception if even the names come to him spontaneously. If he should be asked whether they were sculptors or painters, he would probably think it a catch question. I don't think I'm slandering the American Rhodes scholars when I say that not one in five of us could tell the difference between a Rapahel and a Guido Reni, and I'm sure that, previous to this vacation, not one in ten could have spoken intelligently of a dozen, or even a half dozen, great painters. The Englishman can, nor does he stop with a dozen. In knowledge of artists, ancient and modern, and in appreciation of their productions, we American collegians, as a class, are immeasurably inferior to the Oxonians. Sculpture and sculptors, and, in a less degree, music and musicians are comparatively terrae incognite to us." The Rhodes scholar soon discovers that his first deficiency is a comparative scantiness of general reading and information and he accounts for it in several ways, but, mainly, upon the theory that Oxonian's greater breadth of general reading is connected with the superiority to our collegiate classicists in the classics. "From the earliest days at Harrow, Eton and Rugby, till now, these Englishmen have been expected by their tutors to join their almost exclusive reading of classical literature in school with its natural complement, modern literature, out of school." On the other hand the American youth has been taught almost everything under the sun. "A smattering of nearly every form of knowledge has been thumped into us, and, like most smatterings, has oozed out through our cranial pores or such exits as my own smattering of psychology does not allow me technically to name." Whatever the cause, the facts stand stubbornly forth; in the humanities, literature, philosophy, history and economics, ancient and modern, the Oxonian "thoroughly dwarfs" the classical American Rhodians. In the American Rhodians own field the Englishmen, owing to their long and consistent training, are far in the lead. And all this according to the Americans own count. In addition to this, the complaint is well nigh universal that American students are, with few exceptions, deficient in their own language, spoken and written, with but a smattering of any other.

We may well seek the causes leading up to such conditions: Doubtless aimless and scattered elective courses have had much to do with this state of affairs. The so-called non-academic campus or undergraduate activities are in a greater measure responsible. It has been claimed, with some degree of plausibility, that, in the last quarter of a century, non-academic activities have come to cut a more important figure in college life than scholarship;

that the social pressure of the present day detracts from anything like academic efficiency; that while our colleges are extending their courses our young people were never more indifferent. These activities include the athletic, social, musical, dramatic, literary, religious, fraternal and semi-professional organizations of every sort which, according to President Wilson, have become the "vital, spontaneous, absorbing realities for nine out of every ten men who go to college." They have been summed up as: "class meetings, business meetings, editorial meetings, foot ball rallies, base ball rallies, pyjama rallies, vicarious athletics on the bleachers, garrulous athletics in dining room and parlor and on the porch, rehearsals for the glee club, rehearsals for the mandolin club, rehearsals for the banjo club, rehearsals for dramatic, college dances and class banquets, fraternity dances and suppers, preparations for the dances and banquets, more committees for the preparations, a running up and down the campus for ephemeral articles in ephemeral papers, a soliciting of advertisements, a running up and down for subscriptions to the dances and the dinners and the papers and the clubs, a running up and down in college politics, making tickets, pulling wires, adjusting combinations, canvassing for votes, canvassing the girls for votes, spending hours at sorority houses for votes, talking rubbish unceasingly, thinking rubbish, revamping rubbish, rubbish about high jinks, rubbish about low jinks, rubbish about rallies, rubbish about pseudo-civic honors." These organizations consume vast amounts of time, and into them go the thought, energy and initiative of the students in lavish measure. Between the intervals of campus activities studies and laboratory work receive a minor degree of attention. The teaching machine has delegated to the highly organized undergraduate body the management of college life outside the classroom. According to President Wilson teachers and pupils do not constitute one university body, but two bodies, sharply distinguished, and the undergraduate body is the "more highly organized and independent of the two. They parley with one another, but they do not live with one another, and it is much easier for the influence of the highly organized and very self-conscious undergraduate body to penetrate the faculty than it is for the influence of the faculty to permeate the undergraduate body."

Are these organizations necessary to college life? Oxford and Cambridge have turned out in the past clean, manly, practical, highly-cultivated men who have done their share as scholars and statesmen and have helped to lay firm the foundations of the British Empire. In neither are their "undergraduate newspapers, class meetings, college politics, foot ball rallies, business managers, claques for organized applause dances, social function of the mass. Even social intercourse during term between the sexes is strictly forbidden. Of non-academic activities there are but two: athletics and conversation. They are not a function but a recreation, nor are they limited to specialists whose reputations are professed. Oxonians cultivate athletics because each is an active devotee of some form of sport. And conversation—in junior commons, in the informal clubs, in study and in tutors rooms it is an education, a passion, an art." Not that the activities are valueless per se. On the contrary they take high rank in many ways;

it is the system under which they are managed and the things to which they lead that are bad; lack of thoroughness, dissipation of energy, loss of effectiveness, the blunting of natural capacity and aptitude, a disregard for the prime function of the college chaos.

These undergraduate activities, with all their organizations and interests, tax the energy, the initiative and the ambition of the best men in the undergraduate classes. It is only the more original and spirited young men those capable of effective leadership and endowed with a generous share of originality, who are drafted for these tasks—the very men whom the teachers desire to enlist in the higher enterprises of the mind. The young men are not to blame; the organization is in the main responsible. As President Wilson puts it: "The side shows are permitted to detract from the main circus. The wrong interest occupies the center of the stage. These activities are important; they are extremely worth while; but they should be subordinated to their proper place, ousted from their present position of "dignity and preeminence." The college must give more attention to matters that are outside the curriculum. Any college that fails to mould the life of the students outside of the classroom is guilty of a breach of trust. The college should have an Administrative Board whose special function it should be to study college conditions and to plan a reorganization at the weak points. The introduction of a capable and efficient Administrative Board would do much to restore to the college its ideals of culture and scholarship. This work the regular college professors should neither be called upon nor expected to do; first, because they can't and haven't the time, and, second, because they are already overburdened. With a wise and fearless Administrative Board the force resident in the faculty would be economized, individual teaching could be emphasized, undergraduate college finances could be established upon a secure and honest basis, a fairer system of marking could be introduced and many more young men should be led to appreciate the deep seriousness and diligent labor incident to a college career.

(2) The second way in which the college may render more practical service is by *systematic training for citizenship*. Our leaders in government ought to be college trained men to a vastly greater degree than at present. Our young men should be inspired with ideas of the duties and responsibilities of citizenship, yet our colleges do practically nothing to foster and encourage an interest in politics. It seems to be assumed that students will familiarize themselves with public questions and learn the mechanism of the political world through the daily press and magazines, yet very few students read more than the headings of articles dealing with public questions and leaders is lamentably small. A recent American writer commenting upon the condition in English Universities says: "In the common rooms of the different colleges, and at the Oxford Union, are to be found all the leading English newspapers, and, every day, they are carefully perused by seemingly all the undergraduates. The keenest sort of interest in British politics is manifested and each succeeding phase is closely watched. At Oxford, of course, are to be found the young men who are to shape England's future and they apparently lose no opportunity

to become intimately informed with reference to the machinery of government. Nor does the interest cease with state affairs. A large number of students fit themselves for the civil service examinations and these men, too, narrowly observe the political, economic and social situation of their country from day to day. With us there is no distinctive class of politicians found in our colleges. Nevertheless every young man is destined, by virtue of his Americanism, to play a minor or major part in American politics and our colleges should afford them some incentive to make themselves thoroughly acquainted with their country's government, its internal and external relations and its needs. College graduates themselves have realized their inadequate training for civic affairs and have endeavored to supplement by their own individual efforts and to bring the situation home to the colleges by such organizations as the *Intercollegiate Civic League*. *This league was founded in 1905 by a group of young men in and out of college. Its purpose is to bring home to the young men in colleges the responsibility of citizenship and to give them a practical working knowledge of politics. There are, at the present time, some 40 different clubs found in different colleges. In the main they are organized along the same lines. In some colleges membership is restricted; in others it is voluntary. At Yale the membership is limited to 70; at Northwestern to 30. The Harvard club admits those who have participated actively in politics and a student who is absent from three meetings within the year is dropped. The activities of the clubs vary. Commonly political leaders who have attracted public attention give addresses. The work at Williams a few years ago was notable. Numerous present-day questions were made prominent such as student suffrage, town improvements, ventilation, fire escapes and child labor. Then the student members took photographs of children coming from the factories, got their ages from the mill superintendents and compared them with data furnished by the superintendent of schools and the parents. The work attracted attention and the National Committee on Child Labor suggested the publication and distribution of the findings. This work brought the students face to face with local economic conditions and set them to work in the local environment. At Western Reserve the students allied themselves with the Municipal Association of Cleveland and thus received needed guidance and direction. Members familiarize themselves with the election laws and urge this knowledge upon the students. Members and students not members are urged to take an active part in politics. At the College of New York, at Yale and at Princeton, students offer themselves as watchers at the polls. They thus exert an influence in purifying politics and at the same time gain an insight into political life. At commencement time efforts are made to reach all members who are being graduated or are leaving school in order to urge them to identify themselves with some reform movement or with their local party at home. Such league, while of undoubted merit, is after all but a substitute for something more efficient and could much better supplement the work of the college than attempt to initiate an independent movement. Courses in political science, especially such as relate to the structure and operation

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of government and including the study of political theories, practical and comparative politics, would prove extremely helpful in training for efficient citizenship. If such courses could be made to include *American Political History*; a general survey of American history with emphasis upon political and constitutional history; the *American Party System*, a study of party government, the uses and abuses of party machinery and a consideration of party problems and their relation to political morality and current politics; the *History of Political Ideas*, the leading political thinkers and their philosophies; the *Theory of the State*, its nature, purpose and function, and if such course should be *required for graduation*, intelligent young men, thus equipped, would be able to exert a powerful influence upon American political thought both prior and subsequent to graduation.

(3) Again, our colleges may well do more for *vocational life* than they are at present attempting without in any sense sacrificing their ideals. In something more than a century the basis of society has changed from the military and domestic to the economic and industrial. Our country has become both a vast farm and a vast machine shop; between these ply the railroads, the individual capitalist, the partnership, the corporation and the trust, in order of development and each in proportion to its control of wealth, condition them. Nor is this situation temporal. Its present status indicates permanency and we may pertinently question the relation that the American college sustains to this new state of affairs. What can the college do to foster and encourage this marvelous development; to render it more efficient; more remunerative; to make these interests contribute more fully to the noblest and richest life and to fit young people to assume positions of responsibility and trust in the world of industry. Undoubtedly courses in the mechanic and domestic arts would help vast numbers of young men and young women to find themselves—to discover their sphere of greatest usefulness—and would, at the same time, give them some adequate conceptions of the rights of labor. I know of no reasons, aside from the inertia of conservatism and poverty, that prevents the installation of such courses in our colleges. Two higher institutions of learning are making history in the field of vocational education: Rockford College, located at Rockford, Ill., is the only woman's college between New York and California accorded the first rank in scholarship by the United States Commissioner of Education. Rockford is classed in the report of the Commissioner for 1908 as one of 16 leading women's colleges in the United States and is given equal rank with Smith, Wellesley and Vassar. Its entrance requirements are the same as those of leading colleges and universities of the Northwest. The trustees have been granted full collegiate powers and may confer the usual bachelor degrees. To bring students face to face with facts of things and to cause them to know life as they are likely to find it on leaving college Rockford offers two standard vocational courses: (1) The Home Economics Course designed to fit women to take positions as dieticians, college wardens etc., and to prepare them for teaching the subject. (2) A Secretarial Course, designed to supply the need, so often expressed, for college trained women who can conduct business correspondence and perform all the duties of a competent sec-

retary. Both of these courses may be completed in two years when a certificate is awarded; or they can be extended over four years of college work thus leading to both the special certificate and degree. In all cases, wherever possible, Rockford advocates the degree course. The work is on a very strong academic basis, the vocational subjects being taught by highly trained women, specialists in their fields, who hold degrees. The Ohio State University embraces seven colleges, one of which is the college of Agriculture and Domestic Science and Art. The university offers four-year courses in Agriculture, Horticulture, Forestry and Domestic Science, each leading to the bachelor of science degree. These four-year courses are regular collegiate courses and, in addition to the students specialty, offer thorough and comprehensive schedules in science, English, modern languages etc.

(4) More important than any of the above is the opportunity open to colleges and universities, particularly the latter, for more practical work in *character building*. By character we are to understand integrity and moral uprightness. It is that something in an individual that is of more value than anything he says or does. Emerson said that when Lord Chatham spoke, those who listened felt that there was something finer in the man than anything he said. Someone has said that the measure of character is the resistance to circumstances. Sharp lines may be drawn between college and university at just this point. The college confines itself to the field of liberal arts; it gives its chief attention to the languages, especially the classics; to history, philosophy, literature and mathematics. Its courses are, in the main, prescribed. There is but little flexibility. Little graduate work is undertaken; practically no technical or professional training is offered. The university, on the other hand, is a bunch of colleges under a central authority; it offers technical and professional courses; it has a faculty for graduate work; while the college work generally takes the form of set class instruction, in the university the work is more frequently lectures supplemented by laboratory and library research. The college devotes itself to the undergraduate; the university concerns itself more with professional, technical and graduate work. Now the university says to a student when he matriculates: "Here you are a man, old enough to realize what you are here for, able to stand upon your own feet. If you are disposed to go to the bad it will be your own fault. You know better." President Jordan has said: "The tendency is to throw upon the student more and more the responsibility for his work and conduct." It appears that the system by which Mr. Samuel Weller, senior, trained his son is the ideal emulated by the university: "I took a good deal o' pains with his education sir; let him run in the streets and shift for himself. It's the only way to make a boy sharp, sir." This being the ideal, young men to enter a university should be strong and mature. Boys ought to go to college; they need wise oversight; it requires men to do the work of university grade. The student must have the strength of character to withstand the temptations of life. The university has need just here of strong practical work. A species of indifference seems to exist as to the students conduct and morals during his first year. One needs but a slight knowledge

of student life to realize the weakness that exists in all large institutions with reference to student administration. We all know the effect of bring together during the indiscreet and restless years several thousand young men, many of them with too much money and freed from restraint. It would seem as if hazing, scrapes, humiliating initiations, ruffianism and lawlessness had a fundamental part in college life. Where the lasser faire system prevails in university sports there is found a wasteful use of money, familiarity with gambling and betting, tricks and sharp practices in the arrangement and conduct of games and fraud and dishonor in playing men not honestly eligible.

A second weakness exists in university administration. Through mismanagement and neglect the strongest and best men on the faculty give their time and strength to investigation and research. They meet the students in an impersonal way in the lecture room. The first year students often find themselves tutored by those who, in both scholarship and teaching power, are decidedly inferior to their high school teachers. It is a dangerous thing to take boys and girls from under strong high school teachers and from under home influence and put them under immature and inexperienced tutors. The first college or university year is the vital year. It is a year of transition—always dangerous. It is the year in which precedents are established and habits fixed. The question of self-mastery comes with the first year and failure is dire and disastrous. If the student is strong, industrious, faithful and honest during the first year there is little danger for the future. Dean Charles Fordyce of the university of Nebraska, commenting on the student's first year, used this language: "Why is it so many young men degenerate within six months after entering upon university life? They have been going to a secondary school under home influences. They come to the university their own masters and in a few months fall under the alluring vices constantly flaunted before their eyes." And the Lincoln Times comments editorially: "Lincoln is a university town and ought to know the answer. It probably does, and so do Ann Arbor and Boston and Madison and Montreal and New Haven." Senator John J. Ingall has said: "I did not get half as much out of my college (Williams) as I ought, but as I look back upon myself at that time I realize that I should have gone to pieces entirely in a university." And James H. Canfield adds: "In my observation of more than a quarter of a century I have rarely known a man to be much other than what his first college year made him or left him." Unquestionable one of the strongest features of the work of the small, well endowed and wisely managed, college is the influence exercised in moulding the character of immature students. Unquestionably, too, the greatest weakness inherent in the university system is the lack of careful regard for the conduct and morals of the students and the scheme of tutor-teachers commonly in vogue.

How may the work of our higher institutions of learning be better adapted to practical life? By doing more thorough work; by adequate training for citizenship; by extending their courses so as to include the domestic and mechanic arts; by more efficient character training, sub-

stituting thorough and experienced teachers for tutors and exercising supervision over students manners and morals.

In conclusion, we like to think of the most practical work of the college as imparting to young men the manly tone which characterizes the best American life; to consider our colleges as nurseries of those qualities of character that have given the English-speaking race influence and dominant power at the ends of the earth—courage, self-reliance and the power of sustained effort. The training they afford should, in the last analysis, be moral rather than intellectual; should have its roots in the conception that solidity of character is of greater worth than mere intellectual acumen. A few students will develop superior scholarship, but the great majority must profit by the atmosphere in which they live rather than by the purely intellectual opportunities; the few will become scholars; the many will become well-informed effective and manly Americans, men of sterling character, of superior intelligence, of great working power and having the ability to deal ably with the affairs of life; men who, if not always brilliant, have those virile qualities which win success in the trying competitions of life.

DISCUSSION OF PRESIDENT KERN'S PAPER.

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It seems to me to be a case of bad taste to spoil any of the good effects of such a splendid paper as President Kern's by remarks so incomplete as a limited discussion imposes. But I am forced by the program committee to do this ungrateful task. Most of my remarks are suggested by the paper to be discussed.

First I shall have to take exception to the definition of education quoted approvingly by the paper from President Hadley of Yale. That statement is that education consists in learning things that the student is not going to use by methods which he is going to use. Historically that describes what education has generally undertaken. It is still the traditional view. But it rests squarely on the disciplinarian idea of education which by progressive educators is discarded as failing to state the whole truth or the most important truth. It emphasises powers and processes and minimizes things of the mind, content, subject matter, ideas. If it is the method alone and not the facts which count then a college course in Chinese or Arabic exclusively would be as good and as adequate to equip men for living as one entirely occidental and American. But however university executives are given to making such statements their administrative acts and records give the lie to their theoretical statements. For every one of them is reaching after the cash to establish some new course of study which the world today demands training in and in which the contents, the things actually learned are certainly as important as the mental methods involved.

This naturally leads up to the consideration whether or not our universities are practical. To them I shall limit my remarks, not having time for the colleges.

Universities today, and they will be more so in future, are essentially vocational schools. That means that they are practical, that they articulating with the demands society is making on them as fast as they can secure the funds to carry on the varied lines of training which ought to be established. In other words they are coming to places for specializing men to meet the greater and greater specialization society is inherently and intrinsically taking on and which practical life demands shall be met. If the universities do not do this other institutions will be created which will do it and the universities will lose out. At our recent inaugural exercises at the University of North Dakota, President James of the University of Illinois demonstrated in the most masterly fashion that it is the function of the university to respond to every demand for a new training course made upon it by society, whenever it is clear that the university can do it better than some other agency; and that there are certain things which in the nature of the case the state university is called on to do for the state because it can do it more naturally, less selfishly, so that the good of the largest number shall be enhanced.

The fact that universities now maintain schools of law, medicine, edu-

cation, engineering of various sorts, commerce, as well as arts, indicates their essential nature. New courses and departments are constantly coming into being. A university is not such in truth, in completeness, until it has a continuing training course for every course creditably conducted by secondary schools.

The outcome of this tendency is that each student, not being able to take everything offered by universities, must select a group of related subjects. The election should be relative to groups rather than freely among single subjects. This prevents the pernicious effects which ensue from free electives relative to single subjects. The natural consequence, therefore, or university education is to make it imperative that a student shall select his courses in such a way that they either specialize him to a great degree, as in the professional schools, or to a considerable degree by reason of laying emphasis and premium on some cognate group of studies, as in the liberal arts school.

What is really lacking at the present time in universities is not the presence of training courses. These are abundant and fairly well answer to the practical needs of the times. The intelligence and wisdom by means of which the students may determine their university training from the beginning, without floating in college on the blind hit or miss plan, or, without later in college or in life having to regret that they studied what they did instead of something they find they should have trained for, is now the greatest need. Each university should have in connection with it an advisory vocational bureau, such as Franklin Parsons established in Boston for every one. The business of such a bureau is to teach the individual to study himself and to arrive at a fair estimate of his ability and powers, to discover if he has any special gifts to serve as a cue to his future work. Further it undertakes to make a study of the conditions and opportunities in life actually present, to indicate what lines of life are most crowded, what most in need of workers. By means of the knowledge these two investigations secure for the student, he is able to come to some adequate decision about what he himself should undertake. This bureau should be manned by one or those who have a large knowledge of life and of men, and those in charge should be divorced from the teaching work of the institution so as to remain neutral relative to the lines of university work.

All this raises the question of leadership which was emphasized by Mr. Kern's paper. He stands for a wider culture as a qualification for leadership. I agree with his position in this. But I should insist that it is organized rather than random culture which is in demand. We want our studies organized and pointed. If a man is going to be a minister there is a line of studies which is cognate to his work and which offers the principles which lie beneath his profession. His information is organized. It is more powerful as a servant because it has meaning. The same is true for law, medicine, education or engineering. These cognate subjects do not have to be theological for the minister, legal for the lawyer, medical for the doctor. But they should be studies which directly bear on and throw light on some phase of the calling. Medical students in our own university, for example,

are required to take certain courses in psychology, certain others in sociology, because those subjects throw immense light on conditions which are involved in the career and work of the physician.

It is just here that I would criticise our technical schools and professional schools in our universities. They crowd their curriculums so full of technical requirements that the student has no time for certain related subjects which would enlarge his outlook. Not because I am a sociologist and would take professional pride in seeing many students in that line of study but because I constantly see the deficiency in the attitude of men towards the problems of today, because of this I believe that any career which has to deal with men collectively should have time in its preparatory period in college for studying the large philosophy of society, to see life in its fullest social relations, to understand what is socially good and why, and what is socially bad, and why. If a civil engineer, or a manager of a technical undertaking who employ large numbers of men do not know that certain methods of management and control of labor ruin the careers or injure the fortunes or destroy the homes of the workers, those men are enemies of humanity, no matter what their technical skill and intelligence. Many of our problems now in political and economic life have arisen thru the ignorance of managers and captains of industry of the social sides and responsibilities of their operations. This understanding of the social conditions which surround their careers and the heightened ethical appreciation which comes as a consequence of this understanding is as legitimately a part of an individual's training course as the technical matter.

I would add this prerequisite to President Kern's remarks on training for citizenship. The emphasis was placed on political training. But if you will take a catalog of a modern university you will find other social sciences which are quite as fundamental, even more fundamental than political science. There can be no final political solutions until men understand the economic conditions which lie back behind the political conditions and which are their parents. The sciences of economics and history take you back to these primal conditions. There is also a philosophy of society as a whole, of its evolution, its laws, its forces, and of the balance of its parts which is essential to give the insight and evaluating ability which leadership must have. Sociology gives this information. It also considers the special problems of crime, pauperism, insanity, as a social problem, feeble-mindedness in the same way, and many other problems which confront us and which the intelligent leader must understand.

Just a word about woman's training. As before, in the actual existence of courses relative to household matters we have small criticism to make. The lack is in the atmosphere which makes the student see that those things are worth while. The idea of "culture" is so dominant among women that relatively few see the need of training for home keeping. The idea is tacitly held out to women entering college that education is chiefly a means of getting into polite society, that certain old and reverend brands of goods are the requisites and passports thereto, and that their great end will be attained when they marry some rich reprobate who will hire, ser-

wants to do their work and to allow them to practice vicarious leisure and conspicuous waste. So long as this ideal for femininity prevails we can not hope to have many women in domestic science courses of instruction.

SOME CURRENT COLLEGE PROBLEMS.

VERNON P. SQUIRES.

The American college is just now undergoing a fierce storm of criticism. It is being attacked on many sides and from both within and without. It is to some problems that arise out of this current discussion that I ask your attention. My subject is limited to the College of Liberal Arts. I shall not attempt to discuss the problems of the university or those of the professional or technical colleges. The college I have in mind is the college which is supposed to stand for liberal culture and which grants to those who meet its requirements the time honored degree of Bachelor of Arts.

Probably the most frequent criticism of this college is that its work is aimless, that it has no definite coordinating motive, and that it leads no whither. To my great regret I have to confess that there seems to be much truth in the criticism. The old cultural idea was broken into, a generation ago, by the elective system, "mental discipline" being then set up as the chief desideratum. The rise of the great graduate schools, and the turning loose of a multitude of enthusiastic investigators soon after brought into prominence the methods and ideals of "original research." The rapid rise of technical schools and the recent prominence of the vocational idea has also had its influence on the College of Liberal Arts, so that one graduating class last year was bluntly informed that the education to be aimed at is the education that has a cash value. The very degree of Bachelor of Arts has ceased to convey any distinctive meaning. It may mean that a man has spent four years consistently endeavoring to widen his horizon by finding out the best that has been said and done in the world in the various great departments of human endeavor; or it may mean that he has spent four years on studies, every one of which was selected in preparation for a highly specialized profession, such as medicine, or in preparation for business. Have you not noticed that no two articles on the aim or value of a college education agree? Is it not true that in the same faculty men have altogether different ideas as to what they are driving at? Is there, in fact, among college teachers, the country over, any such thing now-a-days as a "consciousness of kind?" There used to be such a consciousness. There is such a consciousness today among the faculties of a law school or of a school of mines. These men know exactly what they are aiming at. There should be such a consciousness in the College of Liberal Arts. Until there is, criticism will be merited, and contempt more or less general.

The chief difficulty is, I believe, that the college has of late years been attempting to harmonize two irreconcilable ideas. It has tried to serve both God and Mammon. The truth is that training for professional or technical skill and training for liberal culture are two entirely different things, and, as Professor Percy Hughes of Lehigh University says in the current number of the *Popular Science Monthly*, two necessarily antagonistic things. One seeks to broaden a man; the other seeks to sharpen

to a point. One seeks to free his mind—to make him at home in the wide world of ideas; the other seeks to limit his thinking to a narrow field. Now neither a city nor a college divided against itself can stand. The College of Liberal Arts must cease its attempt to be half liberal and half servile. It must find itself. It must be one thing or the other. It must take a definite position and boldly stand its ground. What position shall it be?

To me but one answer seems possible. The College of Liberal Arts should turn over to the professional and technical schools the great and honorable task of professional and technical training. Let it reassume its proper work of training for liberal culture. By culture—much abused word!—I mean not “efficiency” or “mental discipline,” or “social polish,” (all of which are by-products), but rather an appreciative acquaintance with the best that has been thought and done in the world. A man of culture is one who has completed his phylogenetic development, by coming to consciousness of the great animating concepts which lie at the basis of civilization. He is acclimated to the mental and spiritual atmosphere in which he finds himself. He is at home in the world of noble ideas and ideals which the leaders of human thought have set forth in science, philosophy, literature and art. He is sensitive to the great motives that have roused the minds, and nerved the arms, and stirred the hearts, and steadied the souls of the sanest and best-poised of the race. Culture is liberalizing; it shatters the chains of provincialism, of superstition, of materialism; it emancipates one from the slavery of *things*; it gives one freedom in the world of thought. Incidentally it trains the faculties through its necessary processes of analysis and synthesis, and teaches one to think by giving him something worth thinking about.

To this ideal the College of Arts must return if it is to fulfill its mission of helping the individual to “see life steadily and see it whole,” and helping the race to conserve the conquests of the human spirit. Too long the college has permitted itself to be an over-grown department-store at whose bargain counters everything was dispensed which caprice or profit called for. Too long it has allowed education to be regarded as a sort of Christmas shopping expedition, the sole idea of the purchaser being to secure something which would make a good showing at an easy price.

If the cultural program suggested were carried out, a good many changes would be necessary. History and economics would cease to be regarded as Chinese puzzles to be pieced together from bits collected in out-of-the-way volumes. They would insist not so much on the mere collecting of information, and more upon the interpretation of the facts. Students would come to regard these subjects, not as mere opportunities for training in so-called “original research,” but as the revealers of the life of the race in its various stages of development in response to man's ever-widening vision of truth and freedom. Science would be taught, not primarily as a means to success in some practical pursuit, but as the revelation of the divine mind, the Eternal Logos ever expressing itself in the ceaseless play of atoms, molecules, and living organisms. Language and literature would be taught not as exercises in philology, but as the setting forth of the riches of the human spirit, and as a means of training in the noble art of expres-

sion. In other words the sciences would be taught with the aim of making one at home in his physical environment; the humanities, with the aim of making one at home in his social and spiritual environment.

Time is lacking to go into more, specific details. The point to insist on is simply this. The College of Liberal Arts must cease to wobble. It must cut out the vocational idea, it must cease to preach the doctrine of so-called "efficiency," (which always has the connotation of "quick returns"); it must not lure students to its fold on the ground that its training will pay a cash premium. It must have the courage to face down the commercial and crassly materialistic spirit of the times, and dare to assert its true social and spiritual mission.

If it be said that this aim of disinterested non-vocational culture will not attract, I would answer that there are many other excellent courses available for those who want them, and still others might be provided by the universities or by special schools, each leading to a suitable degree. Let the College of Liberal Arts give honorable dismissal to those who wish to study something else than the strictly liberal studies. Let the recently organized courses in commerce be developed, tho of course they should not lead to the Arts degree. Why should one desire a degree that is a misrepresentation of the facts? Is it that it sounds better? Let it be earned then in due form. Does "diamond" sound better than "brilliant?" Let it be paid for then, or if one must wear the "brilliant," let him not claim it as a genuine gem. But this figure is misleading. There is no reason why other degrees should not be entirely honorable. If the courses leading to them are what a student wants, he ought to rejoice in the distinctive label, the guaranty that he has completed the task of his choice. Let him have enough pride and self respect not to masquerade for life under false colors.

It is not at all necessary that everyone should take a course in the liberal arts. Not everyone needs to know ancient history, or Greek philosophy, or Shakespearian drama, or the history of art, or the great principles of economics. It is the duty of a great many to leave these subjects for others more immediately practical. But it will certainly be an unfortunate day for the republic or for any community therein when ideas which were discredited centuries ago are exploited as new and precious discoveries and there is no one to expose their fallacy; or when cheap and taudry art of any sort is hailed as great and wonderful, and no one steeped in true artistic ideals is at hand to point out its essential vulgarity; or when false economic ideas are set forth by popular demagogues, and there is no one by to tell the truth. A little salt will season a good sized lump; but if the salt has lost its savor, wherewithal shall it be salted? The College of Liberal Arts has a great mission in the republic and the state as a liberator of the spirit, as a dispenser of sweetness and light. It must be preserved and preserved in its old time strength and honor. It must not allow itself to be torn to shreds, or to have its strength diverted into alien channels. It must boldly stand against the muck-raking, materialistic tendency of the times which is wrecking the spiritual life of the race, and destroying our priceless heritage of culture. It must bravely lift up its voice in behalf of those eternal values of the soul for which reformers

have toiled, and seers and prophets have undergone ridicule; for which philosophers have taught and scientists have investigated and poets have sung and artists have wrought and martyrs have died since the beginning of history.

Closely connected with this first problem, as to the fundamental aim of the college, is the second, as to who is to be admitted to its courses. Until very recently no one has seriously objected to the idea that each college should set whatever requirements for matriculation it chose. But lately, the high school, having found itself and grown strong, has declared for independence. High school men say that the curriculum of the high school is their problem, that they are competent to solve it, and that the colleges must keep their hands off. They call upon the College of Liberal Arts to take their graduates at par value, whatever the nature of the preparatory course may have been. This idea was much discussed at the meeting of the National Education Association in Boston last summer, and if one may judge from the reports of the meeting and from the accounts of those in attendance, it stirred up a great deal of interest. Resolutions were finally adopted calling on colleges to give recognition to "all subjects well taught in the high school." In other words, the high school would, in homely phrase, put the shoe on the other foot, substituting for what they call college domination of the high schools, high school domination of the colleges. Here certainly is a live and practical problem. Shall the college be satisfied to take passively such students as the high schools choose to send, or shall it in the future, as in the past, assume to determine the fitness of those who knock at its portals? I have good friends who say that the college must yield the point, and let the high school rule. They plead the beauty of coordination, and the seeming hardship which sometimes results when a high school student suddenly decides, say in his last year, to go to college.

But for my part, I cannot agree with the idea; for it rests on what I regard as an entirely erroneous conception of the College of Liberal Arts. It assumes that in preparation for that college, one thing is just as good as another, and "any old thing will do." It rests on the department-store, bargain-counter idea that I have just been discussing. Now I have never heard any objection to the definite requiring of mathematics, physics, and English for admission to a College of Mechanical Engineering; because it is universally recognized that these subjects are absolutely essential for successfully pursuing the studies involved in that course. But for the College of Arts nothing is deemed especially essential, because that course is not regarded as having any definite or serious aim. If, however, as I advocate, the College of Arts were really made to stand for culture, it would be at once evident that certain studies like English, history, a foreign language, and elementary science are absolutely essential as a foundation on which to build a rounded and liberal education. The college would then surely have a right to demand that the high school give these courses and the further right to refuse full admission to candidates who have not taken them. Bad as things now are in the College of Arts, it will certainly be a sorry day if the bars, now too few, are all thrown down and the

college tries to build a broad educational super-structure on the foundation made up of a job lot of high school "snaps," and narrow vocational studies.

But, it is said, we can trust the high schools to give us good material. High school men are just as anxious to turn out good graduates as the college is to get them. I am quite ready to admit the fine spirit of our professional brethren in the high school; but I cannot forget that high schools and high school men are subject to a tremendous local pressure, the like of which we college men do not experience. This local pressure is all in the direction of the strictly practical. Uneducated parents and un-enlightened school boards do not see the needs of subjects not directly utilitarian. Too often they have the idea that the worth of studies is to be estimated only by their cash value. If it were not for outside pressure right here in our own state, how many high schools would be maintained at their present cultural efficiency? Many devoted high school men do not want the boasted liberty for which others are shouting so loud; for they know its result can only be a lowering of standard, and a loss of what is truly cultural. 'I sincerely hope the college will not weakly yield this point, but will demand as it always has demanded, and as it must demand, if it is to do its work, a goodly number of fixed requirements for admission to its courses.

The third problem which I would mention is the problem of maintaining in the college a true spirit of scholarship, a genuine love of learning. The condition at present is certainly far from ideal. In President Wilson's phrase, the side shows are getting more attention than the main performance. A thousand and one "outside activities" claim the student's time and energy. The day of the ordinary collegian is broken into by a multitude of petty distractions which render impossible that concentration and continuity of thought which are absolutely essential for real scholarship. I could cite details and figures, but the facts are generally known.

For the existence of this state of affairs I can see at least four causes. One is, of course, the coeducational system, and the consequent desire for more social life. This cause is likely to continue with us, but it can be largely controlled. A more troublesome one arises out of the fact that it is becoming fashionable to send young people to college whether or not they have any special aptitude for scholarship. Thus, many enter college with no higher purpose than that of having a good time. Once on the ground, they proceed to carry out their purpose. They give their days and nights to these ephemeral activities, and publicly announce that they do not intend that their studies shall interfere with their college life. It was one of these who complained because President Wilson was "changing dear old Princeton into a damned educational institution." To this class of careless hangers-on, Professor Gayley has given the name "Bandar-log." A third cause, is the presence of the students who come to college actuated pre-eminently by the vocational idea. These usually put in long hours in laboratory, shop, or drafting-room, but they do little else. Not being animated by any real love of learning for its own sake, they drop their studies as a mechanic does his tools when the closing time comes, and in the evening join the Bandar-log in having a gay time. These men are earnest in a way,

but not in a truly intellectual way. They are, in most cases, narrowly limited in ideas and interests, out of touch with the essentially fine things of life, devoid of real spiritual insight, and scornful of culture. Their presence and influence are distinctly antagonistic to true liberal college spirit.

But the most influential reason for the present dissipation of energy among collegians is the fact that in the College of Arts a student does not clearly conceive his aim. He does not feel quite certain just what he came to college to get. He finds no unanimity of purpose among either his chums or his professors. Perhaps Edward Everett Hale's misleading maxim that the best part of one's education is what one gets from the other fellows, floats in the background of his thought. He does not see how the study of Horace, or of Greek history, or of mediaeval philosophy is going to increase his "efficiency" in after life. Working in a blind way for "mental discipline," of which he hears a good deal said, is like the monotonous pulling of chest weights in the gymnasium. It is a dreadful bore. He discovers that the gospel of culture, the doctrine of vital spiritual values, is openly laughed at by a majority of his class-mates, and probably by a majority of his instructors. Is it any wonder that thus wandering in a maze he falls under the influence of the jovial Bandar-log or the self-satisfied utilitarian, abandons his early ideals for an all-round, liberal education, and goes in for a good time? "After all," he exclaims, "the only way of making a name in college circles is by prominence in these 'outside activities.'" So it is "Goodbye" to hard thought and reading, and "All hail," to something more tangible. In some such way as this it has come about that the relaxations of student life, which in their place are charming and desirable, have usurped the throne.

The universal groan going up from the serious men in the American College of today testifies to the fact that I have not over colored my picture. Here is a real problem. How is it to be met?

In the first place, I would say, by simplifying and clarifying the motives and methods of liberal education. Let the aim of *Culture* be made perfectly plain. Let the student clearly grasp the idea that his business is to climb along the great paths of thought as near as possible, to the level of the best ideas and ideals of civilized man, and thus to prepare himself for entering into his spiritual heritage. Let him be taught that if he becomes a serious student, mental discipline will come naturally as a by-product, just as bodily strength comes naturally as a by-product of enjoyable physical exercise. Let him understand that he is preparing to make, not a living, but a life, and that for his vocational training he must go elsewhere and take an entirely different course. Let him realize that the measure of his success as a student in the Liberal Arts will be the measure of his ability to understand and enjoy the things that are true and lovely and of good report.

If such were the atmosphere of college life, if to this end there were eager cooperation on the part of all the faculty, and the great majority, at least, of the students, it would certainly prove infectious. Intellectual curiosity would be stimulated; a genuine thirst for sound learning would be provoked. The microbe of *Culture* would attack every freshman except the hopelessly

pachydermatous. Every man would realize what the college stands for, and would feel distinctly out of place unless he were in some degree fitting into his environment.

I had in mind to mention one or two ways and means more specifically, but my time does not permit. In conclusion let me briefly recapitulate. The greatest problems of the College of Arts rise out of the fact that it lacks a central, unifying, illuminating idea, and that consequently faculty and students, following various gods, are working at cross purposes. The remedy lies in its resuming its old aim of liberal culture, giving that ideal, of course, a modern content, but inexorably casting out from its curriculum everything that does not have Culture as a *raison d'etre*. Thus will the mooted question of admission requirements be easily settled and the vain and frothy "activities" of college life be made to give way to a real love for learning and a passion for its acquirement.

Oct. 17, 1910.

THE SIGNIFICANCE OF ETHICAL CULTURE IN HIGHER LEARNING.

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I believe the greatest problem confronting constructive academic statesmanship is the religious and ethical culture of the students in our colleges and universities. More and more college-bred men and women are taking the prominent places and positions of influence in our national fabric, and character is the highest demand. In this year's "Who is Who," out of the 15,518 biographies 11,034 attended college, which is over 71 per cent, and 8,529, or 55 per cent, received a baccalaureate degree in course. Statesmen, physicians, scientists, publicists, educators, and men of affairs turn over the pages of the alumni of our higher institutions for their men of fame and position. To what extent are they men of moral virility? Are the college-bred men pure in their ideals, imbued with moral rectitude and religious faith, and by that I mean a true recognition of their responsibility and accountability to God? Are the conditions favorable for the development of character with intellectual force? Does there subsist a relation between intellectual training and religious and ethical culture? Can character be formed for the conservation of government and the perpetuity of our institutions without due emphasis upon the religious life of our students and their moral and ethical equipment? Are our institutions of higher education meeting their responsibility in this matter, and if not, where is the weakness, and wherein must the remedy be found?

In a clear conception of the problem, we must remember two things. First, that the ideals of religious and ethical culture of the founders of our republic are in many instances the inspiration of institutions not now denominated religious schools. Higher education was cradled in Christian thought and is the product of religious and ethical influences. William and Mary, Yale, Harvard, University of Pennsylvania, Columbia, Princeton, and others, whose roots run back to the founding of our nation and which have contributed such a large stream of educated men and women whose force and ideals are woven into the warp and woof of our national fabric, are products of the dreams and prayers and labors of consecrated Christianity. In the articles of incorporation of Harvard are found the words, "That the light of learning may not go out, nor the study of God's word perish." The annals of the formative days of many of our state universities disclose the truth that the ideals of ethical and religious culture played an important part in their building and success, and this was largely in order to meet the requirements of true national life and that "Virtue, religion and morality may forever be perpetuated." And, in the second place, we must remember that the impress upon public life, and life in general of the Christian colleges has been vastly greater than is generally supposed; and their potent influence must not be overlooked in whatever there obtains of moral and ethical worth among our people. These institutions have not been carried away by the infatuation for bigness to the detriment of thorough classical and literary and ethical training, and have in reality done the stupendous

work of character building. For instance, in 1908 the "institutions organized to give prominence to the idea of religion as a source of inspiration numbered 218," and in them "one-half of all students receiving higher education in America were enrolled." There are in America 344 denominational or Christian schools in which there was, in 1908, an enrollment of 74,092 men and 37,670 women, a total of 111,771 students; whereas in the state institutions there were only 34,179 men and 13,243 women, a total of 47,422. In other words, there were 64,349 more students in the denominational schools than in the state schools, nearly three times as many as there are scattered all over our land, which clearly reveals where the youth of America are obtaining their higher education. The state institutions cover but a small area of our country, the east being nearly wholly without them. They are a product of the central west. In Pennsylvania there are over one hundred colleges without a state university; in Ohio there are thirty-two colleges, in Iowa nearly twenty—the students in them vastly outnumbering those at the state institutions. It therefore obtains that in most states the aggregate of students in the Christian schools far outnumber those in attendance at other schools. The result is apparent in the ethical and moral and religious life of our people, and, if there are conditions in our public and business life which are to be deplored, and this seems to be true, it is not difficult to comprehend how much worse it would be today were these distinctively ethical and religious schools not in existence and doing such a stupendous conserving work.

I hold that the significance of the moral and ethical culture in higher learning comes from the very meaning of education itself and its design in our economic, social and public life. Academically it means "to exercise the mental faculties of a person as by instruction, training and discipline, in such a way as to develop and render efficient the natural powers; develop a man physically, mentally, morally and spiritually." Whether the course of learning is technical, so called practical and industrial, or classical and literary, the work involved is the leading out of forces and energies; the mental, spiritual, physical and moral adaptation of powers to the principles and problems before the student; not a process of infusion, not an implantation of powers, but a development of existing latent powers. Man is not the Lockian white paper upon which life is to be registered by processes from without, but a microcosm, throbbing with wonderful, stupendous potentialities, whose world is to be actualized by wholesome, healthy, buoyant growth. Such an education is broad and liberal. It does not narrow itself down to the defined channel of simply mental development. Education does not stand for the supremacy of the brain, much less any one faculty of it; it comprehends the development of the feelings, the discipline of the will, the unfoldment of the moral powers, the appreciation of the principles of living, the guidance and cultivation of the tastes, the equipment of the mind, the culture of the virtues, courage and the beautifying of the spirit. It is only by the realization of himself as the Architect of the universe made and designed him, that the student can become a creator and benefactor to the world in any pursuit, in poetry, in art, in literature, in science, in economics, in statesmanship, in industry. Whereas

his mind is the supreme faculty through which he interprets himself to the world, it is, after all, only an agent of a deeper and larger life than itself, and that education, so called, has been disrobed of its splendor and significance which leaves that larger and deeper life untouched and unexpressed in real vital form. The creator in literature, with whom we love to sit and meditate, speaks not only of men and actions, not only of nature in its beauty and grandeur in flowing periods or in poetic harmonies, but tells us how his own life has been brought out and lifted up into the symphony of the universe, and not until the reader has likewise discovered himself will he comprehend his worth and greatness. We may not like the Childe Harold, but it is the soul of Lord Byron. So the historian records not only the cold facts of nations, he not only tells of bloody carnage and the building up of commerce, of how Caesar won and lost, of how Napoleon struck terror into the heart of Europe, and Cromwell rose from poverty into commanding greatness; he writes to tell us also of the visions of his soul in terms of the splendors and wrecks of the past, that the present life and works are but the swells of the boundless ocean waves of human activity, that the solidarity of humanity embraces us in a long line of wondrous life, whose beginning lies somewhere in the ages past and whose end is bound up in the eternity to come, and not until the student has gone beyond mere facts and dates and has fathomed the depths of his soul can he understand him and see how he is not independent of the past but a contributing force to the great ocean of life. The grandeurs of the sea, the glory of the sky, the footprints of man, the wealth of the earth and the secrets of time, are interpreted by a Newton in scientific expression, by a Kepler in utilitarian form, by a Raphael in color, by a Mendelsohn in harmony and symphony; each expressing the universe in terms of his own unfoldment and consciousness. And so in education the mind becomes "a clear, cold logic engine, with all its parts of equal strength, and in smooth working order, ready like a steam engine to be turned to any kind of work," impelled and governed by the moral, physical, intellectual and spiritual motive power of the man. Education has lost its significance when it ignores character as its supreme end, and character imperatively demands the harnessing of intellect with moral and religious ideals. It is the departure from this conception of education that makes the consideration of the moral and ethical element so important.

We can never overcome the present situation of dishonesty, immorality and corruption which is strangling our young republic until we purify the educational sources and the great army of educated youth are moral-toned, ethically-cultured men and women. The sources of supply have crowded out the moral and ethical element in education, either because of the absence of statesmanship to discover a common basis for such training, or because utilitarianism holds the laurels in education. Our country is in greater need of enlightened morality, courage and the common virtues than commercialized trained brains. Keen intellectual culture devoid of proper religious safeguards is more dangerous to a nation than ignorance. It takes intelligence to evade the law, and the more thoroughly developed the brain the greater the ability to circumvent the common safety and the public

good. The greatest criminals have been men of marked mentality, and the most corrupting agencies have been under the supervision of brain power. It is imperative, therefore, that ethical culture and the formal instruction in the fundamentals of morality and religion should hold the supreme place in the educational scheme of the land.

The consciousness on the part of true public men and educators of the absence of ethical and moral training in our institutions of higher learning has in the last few years caused the devising of plans and means to supply this lamentable want, and different schemes have been proposed and some of them tried. In seeking to solve the problem, nothing is gained by declaring our state institutions as "Godless schools," nor by saying that "there is practically no difference in the training, surroundings, or moral influences of a denominational college and a state university." Both are a misstatement and can never be accepted as truth. The former can not be true because in the professorship and in the administrative offices there are men of pronounced Christian living and belief; and if the latter is true there is no problem and a solution need not be sought, nor can there be any reason for inviting Christian forces to cooperate. It is because of the fact that religion and morality are inseparable, that reverence for divine things and acknowledged accountability to God are the basic principles of sound and enduring ethics, which can not be taught to our youth at state institutions, that our people are interested in some form of cooperation between Church and state for the ethical welfare of our land. It must not be thought in the plans now in vogue that the religious organizations of our land are only seeking to prevent the youth from drifting from one Church to another; no true Church would think of her own life in altruistic endeavor, for if she sought "to save her life, she would lose it." That is the commercial conception in ethical endeavor, unfortunately too much in keeping with the whole scheme of education, and from which our institutions must be delivered, if the public's good is to be served and not the individual's selfish end. This is a point in ethics which we so sadly need to have emphasized in our professional schools, as law, medicine, dentistry, pharmacy, and in our graduate and research work.

The plans proposed are briefly these. First, what is called religious work under the leadership of student pastors. These student pastors generally have, or aim to have, guild halls, for rooming students of their respective denominations, and where lectures on sociological, ethical and Biblical subjects are given by prominent men. In some instances university credit is sought for work taken under the guidance of these organizations. This plan is just now receiving considerable attention and encouragement, and is calculated to do some good, as long as no one denomination dominates the field. The plan admits of some modifications, as the introduction of non-collegiate subjects which may not be given by the university. In this way it is expected that these organizations will serve some definite training purpose and influence those of the university students among them with high religious ideals and moral courage. The plan should be given the utmost chance to demonstrate its usefulness. At present it is merely an experiment, and has given little more than a "varnish of religion" to our

educational scheme. It will always have the disadvantages of lack of authority and externality, not being an integral part of the life of the institution. Second, we have what has been called the "Iowa plan." This, to give Dr. Geo. E. MacLean's explanation, "is a religious education committee, made up of the Churches, the Young Men's Christian Association, the Young Women's Christian Association and the student religious organizations. This voluntary association secures advertisement of religious activities and a general co-operation." What is attempted here has attained a more complete formation in what is known as "The Ann Arbor School of Religion." Dr. R. M. Wenley is at the head of it and its organization probably meets more effectively the religious needs of independent student life than any other method yet devised. He claims that the "spiritual and intellectual offices are inseparable." "We would urge," he says, "that spiritual nurture requires a discipline of its own to chasten intellectual acquisitiveness, and that this can not be obtained from the natural ebullitions of the student community, known as 'college spirit,' 'freedom of self-governing initiative,' and the like. Direction of the kind offered by the university in intellectual matters is indispensable here too. The school is therefore strongly favorable to the preservation, in all their freshness, persuasion and sanctity, of home ties, and of the church connection which students bring with them. These furnish a solid basis for its work. Accordingly, we seek, and possess, the support of the local denominations which have developed means of carrying on special work among students. Apart from this our work would be nullified, possibly impracticable. The clergy and student pastors occupy a prominent place on our staff, while the guild houses, parlors and Christian Association rooms are placed at our disposal. To a great extent our organization plans to intensify, line up and strengthen the facilities given by the churches."

These methods probably follow the lines of all future development. Whether they will so closely adhere to the campus life and activity, void of all rivalry in the included organizations themselves, as to instill religious devotion and spiritual culture to the degree that they obtain when the instruction is an essential feature and holds the preeminent place in the educational organism itself, remains to be seen. It is a part of true statesmanship to encourage the solution of the problem in the instances where sincere endeavor is made. It would seem, however, to my mind that the right way will ultimately prove itself to be from within the organization of the institutions themselves. No amount of external organization will bring it about. You can not inject morality nor stimulate religious and ethical character by hypodermic processes. To create an atmosphere, to envelop the campus with religious influences may be good, but here "the good is an enemy of the best." Its highest form will be but an accentuated type of external church life and influence, beneficial to the few already religious and moral, who love the "atmosphere," but remote from the masses whose soul life must be inspired for civic, moral and religious rectitude.

The true solution, to my mind, is in the unification of existing educational forces, giving each their proper place and each appreciating the stupendous work of the other. This unification is the logic of educational advancement. You can not stop it; to do so means the curtailment of the

state institutions and the lowering of educational standards. What I mean is that in the years to come the university function will be written in terms of public service with prepared material, that only students prepared in colleges for research work, graduate study, and professional and technical pursuits, such as medicine, law, dentistry, engineering, and so on, will be accepted. The colleges can not do the university work, and the university is not a university which lays stress upon college work, and can not do it as well as the colleges. The colleges will forever remain the strongholds in classical and literary culture with religious instruction for strong ethical virility, and the universities in the years to come will place the emphasis on the professional and research work, and gradually eliminate the classical and literary work in the college. It is a narrow conception that fails to see the magnitude of the universities a hundred years hence in the form here presented. That is not visionary; look at the tremendous growth in twenty-five years! The same rate will continue and the care of the students during their college training, when the character is being formed, and the studious habit instilled, must be left more and more to the Christian colleges in the years to come from the fact of numbers alone, saying nothing of the growing ethical demands. President Edmund James, of the University of Illinois, says, "The colleges are here to do their work of preparation for the still higher branches of learning, and the day is not far distant when only such college prepared men will be permitted to enter the universities." This educational program is the logic of conditions, and in the scheme of true unification upon this basis our land will obtain her strong trained men, intellectually, morally and religiously, with no turmoil of strife or jealousy or rivalry. In the words of Dr. James D. Moffat, of Washington, Jefferson College, "Our colleges do not need to enter into an unequal competition with universities, nor do we need to disparage in the slightest their great usefulness, for our colleges have their own work to do and may do it better than other institutions, if properly endowed. There are university presidents so deeply interested in the educational system of the United States and who know so well how to appreciate the peculiar work of the classical college, that they deplore any attempt to advance universities at the expense of the colleges." It is significant to note that the great University of California has already entered upon this educational program by eliminating the first two years and demanding that preparation in the colleges of the commonwealth or beyond. Such a unification is honorable and just to all, and will place our youth under the necessary moral and ethical and religious instruction and in an environment that is wholesome and pure and evangelical, and it is not an assumption to say that it will be the growing conviction of enlightened statesmanship. The mighty force of Christian influences in the great classical and literary colleges of the land destined to grow with the ever swelling tide of American population, and the invaluable services rendered by them for stalwart honest citizenship will be appreciated as imperative to our nation's glory and perpetuity. The convictions of the founders of our Republic are the high water mark of citizenship.

DEPARTMENT OF
SECONDARY EDUCATION

MINUTES

FIRST SESSION.

Bismarck, N. D., Oct. 19, 1910, 9:30 A. M.

The section of Secondary Education met in the Presbyterian Church, Pres. S. Henry Wolfe in the chair.

In the absence of secretary Thordarson, P. A. McMillen was elected secretary pro tem.

Pres. Wolfe delivered an address on the Conservation of the American Boy.

The general topic was: What are our High Schools doing and what should they do towards efficiency in

1. The Study of Agriculture.—Supt. A. B. Hess, Larimore.
2. Commercial Subjects—Supt. Nelson Sauvain, Casselton.
3. Moral Training—Supt. E. R. Edwards, Minto.
4. Hygiene and Sanitation—Supt. F. J. McLain, Towner.

On motion by Supt. Edwards, Supt. S. Henry Wolfe, Pres. of the section, was elected member of the nominating committee.

State inspector Richard Heyward reported to the section the results of his investigation of the feeling regarding the placing of state examinations two weeks later in Jan. and June. After discussion, on motion of Supt. Crane, the section approved of Inspector Heyward's recommendation that examinations be placed two weeks later by a vote of 16 to 9.

Supt. Crane briefly addressed the section on the matter of Physical Training and Games.

Motion to adjourn carried.

P. A. McMILLEN, Tem. Sec.

Bismarck, Oct. 21, 1910, 9:30 A. M.

SECOND SESSION.

Meeting called to order by Supt. S. Henry Wolfe, President.

The program provided was carried out in full as follows:

The High School. Its Weakness and Suggested Modifications.—Supt. Geo. W. Hanna, Valley City.

Are There Subjects in the List of Constants and Electives Which Should be Dropped to Give Place to Others of More Immediate Value?—Supt. A. G. Crane, Jamestown.

What is the Function of the High School in the Preparation of Teachers for the Common Schools?—Supt. C. Ellithorpe, Williston.

The Abuse of Inter High School Athletics and Its Remedy.—Supt. R. B. Murphy, Tower City.

The above paper was read by Prin. Miss Ethel Ackerman of Tower City.

What Should be the Common Standards of Culture in High Schools?—Supt. W. A. Godward, Devils Lake.

Election of Officers resulted as follows:

President—Supt. Nelson Sauvain.

Vice President—Supt. L. P. Lynn.

Secretary—Supt. C. Ellithorpe.

The following resolution was moved by Supt. Crane and unanimously adopted: Resolved: That the High School Section hereby recognizes the usefulness of and the necessity for the office of High School Inspector which the rapid growth in importance and numbers of high schools has made imperative and

Resolved: That this council express its appreciation of Inspector Richard Heyward for his conscientious, interested and thoro attention to the good of the school and for his increasing efficiency, shown by the last excellent annual report, and

Resolved: That a copy of these resolutions be sent to the High School Board.

The following resolution was offered by Supt. Edwards, seconded by Supt. Ellithorpe, and unanimously adopted:

Resolved: That we favor the recognition by the state department of public instruction, under certain restrictions, of local high school marks in lieu of the teachers' examination; and favor legislation making diplomas of graduates of approved teachers courses of our high schools certificates to teach in the common schools.

Motion by Supt. Crane, duly seconded, that the committee of the high school section endeavor to secure an appropriation of sufficient funds to give the state high schools the sum originally intended, if in their judgment it be feasible.

On motion of the high school section a committee of five consisting of Superintendent N. C. MacDonald, A. G. Crane, G. W. Hanna, P. S. Berg and C. E. Root was appointed to see that the foregoing resolutions be carried out and to have charge of the high school interests in the legislature.

On motion the High School section adjourned.

P. A. McMILLAN, Tem. Sec.

Per C. E.

PRESIDENT'S ADDRESS—SECONDARY DEPARTMENT.

THE CONSERVATION OF THE AMERICAN BOY.

SUPT. S. HENRY WOLF, MINOT.

During the past few years we have heard a great deal about the conservation of our natural resources—our soil, our forests, our coal mines and waterways; the whole country has been awakened and aroused to the need of conserving our agricultural, mining and forestry resources. Conventions have been called by governors of states and other high officials for the purpose of discussing these great questions; much has been done to quicken the public mind and to make it realize that if we do not want to exhaust our natural resources in another generation, we must pay immediate attention to conserving what we have at the present time. Important as these things are to the physical and financial welfare of a state and nation, still more important than all these, is the character of our future citizenship which is now in the making among the boys in the schools of today; for in ages to come as in ages past, true greatness in state or nation, will always be measured by noble manhood.

A noted thinker and writer on this subject has recently said: "In our eagerness out here in the middle West to herald to the world the magnitude of our corn, wheat and flax crops, the superiority of our beef cattle and thoroughbred swine, and the tremendous productiveness of our domestic hen, we are prone to lose sight of the real issue, namely, the splendid crop of strong sons and fair daughters that the country is producing. In their joyous natures we behold at once the bright sunlight of hope and the beautiful bow of promise of our future greatness and glory. Drouths and deluges may destroy our growing crops, disease and degeneration may play havoc among our cattle on a thousand hills and our treasured porkers in the alfalfa fields; yea, all these calamities might conceivably come upon us each in its turn, and yet our glory not be dimmed; provided only, that our growing boys and girls be so trained and safeguarded in the home, so educated and disciplined in the school, the church and other institutions of the country that they will develop into well-rounded magnificent specimens of manhood and womanhood."

The greatest question then before the American people today, is not how shall we maintain our natural resources of soil, mine and forest, but how shall we conserve the greatest resource of any age or nation—viz., the American boy. For of what use are mines, fertile soils, great forests and limitless water-power, unless we have a physically sound, a morally upright and a mentally intelligent manhood to make use of these? "Why conserve the wherewithal for man's work, subsistence and happiness, unless he for whom such conservation is planned, be himself conserved and improved in strength and efficiency?"

The boys in the schools of today are the citizens of tomorrow. If these boys shall go out into life, stronger in body, keener in mind and intellect, firmer in moral tone and purpose than were their fathers, then the schools

which are moulding their characters, must take a decided step forward in their means and methods of education. In the first place we must improve the boy physically. We must provide a compulsory system of medical inspection, suitable playgrounds and gymnasiums. Boys are by nature gregarious and unless the schools and the homes provide a place where boys can meet and let off some pent-up steam and electricity in physical exercise, it is the most natural thing for them to meet in caves, dugouts, the streets and in the pool-rooms where they become physically and morally corrupt. When a boy tells me that there is no other place for him "to hang out" than the public pool-room, I do not blame him for going there, but I *do* blame a condition of society which makes such a thing possible! Verily, we are too short-sighted, for we take care of our horses, cattle, sheep, hogs, chickens and dogs—in fact every thing except the boy, and if he goes wrong, we blame him instead of a condition of society which has produced it. Every school district of a certain size ought to be compelled by law to furnish a building and grounds large enough and equipped with the best appliances for the complete physical development of every child within its jurisdiction. Many schools make use of the modern games of foot-ball, base-ball, basket-ball, tennis, etc., but these games benefit only a few and I would not detract from them. Why could we not have military drill out in the open air in season and make it compulsory for every boy in school? Look at the average schoolboy with his humped shoulders and wobbly walk! What's the matter with him? What does he need? I'll tell you. He needs to be put through a series of well-graded setting-up exercises; he needs to be drilled on how to stand, sit, walk, run, jump and to respond instantly to commands; he needs to know personal hygiene and how to conserve his own physical powers for the betterment of his own existence and that of the race.

In the second place, the schools must conserve the American boy, morally. How this can be done successfully, does not yet appear; but every true teacher who has the altruistic spirit burdening his soul, realizes that the moral fibre of the American boy is fast disintegrating and must be conserved thru the agency of the public school. The home which used to take care of this training a generation ago, has completely disappeared. In its place, there is a sort of pseudo-home, where the boy comes to eat and sleep and which no longer has an important influence upon his moral life. In fact, the family life is rapidly decaying and as witness we need only mention the police and divorce courts. Who is going to train the products of such delinquent parentage in morals? The home cannot for it is broken up. The church thru the modern Sunday School cannot for it is neither adapted to adolescent nature nor can it reach this particular class of boys. If there was some systematic attempt upon the part of the churches to teach morals—not necessarily religious instruction—there might be some hope of a brighter outlook in the future. Since the family and the church have failed, it is the duty of the state, thru its public schools, to take over the question of moral training, in order to preserve itself. Moral training must form a definite part of the school curriculum of the future or a speedy decay of the American boy will result.

In the third place, we must conserve the American boy intellectually, by giving him a course of study that will prepare him to earn his own living honestly with hands and brain in order to fulfill in some measure at least, his duties as an American citizen. We have been putting too much stress upon the cultural aspects of education and too little upon the vocational; we have been worshipping the antiquated and fossilized courses of study of our grand-fathers too long; we have been dominated over and standardized by higher institutions until the schools and courses are as nearly alike as peas in a pod. A noted educator of a neighboring state, has said lately, "Schools that are standardized are crystallized and a thing that is crystallized has no principle of life in it." Our curricula as we find them today need to be completely revolutionized and modernized and made to fit the average boy—not the boy to fit the course. Our schools under the present courses have failed to fit boys for a place in life, and still we are all agreed upon the proposition that schools should meet the real needs of the communities in which they exist. Why do the vast majority of boys from 14 to 16 years of age become tired of school and quit? Simply because there is nothing there for them. Mr. Mayne of the Minnesota Agricultural School in a recent address said: "The great multitude of our boys are fitted for nothing because of the unsuitability of our schools. Take the army of boys in the state, over 16 years of age and put them in line. March them by and ask the question: 'What are they fitted for?' They are fitted to become clerks in stores, possibly to go to some higher institution of learning, and possibly to become delivery boys. That is very nearly a complete list of the occupations, for which the boys in that great army are fitted by our schools." This is a sad picture but who of us will deny its truth? And still how can it, be otherwise under our present-day system of education which is a training of the head only? If it tends anywhere, it tends away from the farm, the shop and productive activity, and toward the college or university and a professional life.

It is plain then that our courses must be re-adjusted so as to include a greater amount of hand-training for when the hand is busy, the brain is thinking. No boy ever made anything with his hands when his brain was not working, and the more complex the article, the harder he thought. With head and hand both busy the heart will never go astray. The reason why so many boys in our cities are fast becoming a race of street loafers, is because the hand and head are both idle. The three months summer vacation is largely responsible for the good-for-nothing-ness of the average boy. These vacations mean three months of idleness, dissipation and moral delinquency which will soon tell on the young manhood of this nation. The average boy needs to be kept busy by some form of hand labor or he will soon fall into lazy, shiftless habits which will finally leave him without an honorable career. And what are our schools doing to remedy these conditions? What can be done to help the boy? In the first place, I would lengthen the school year to twelve months with four weeks vacation—one week at the end of each three-months term. Under the present plan, the whole expensive school plant lies completely idle for three months. No business concern with half as much capital, invested as in the average school system, would

think of taking a three months vacation. The question of how to keep the boy "out of mischief" during vacation time, would be solved for keeps. The summer vacation was originally established to suit farming communities, where the help of the younger generation was needed about the farm in crop-raising and crop-harvesting time. It is still retained in the cities where so much reason for it exists. The related problem of the strong the backward and the frail pupil, would also be solved. Having established the all-the-year-round school, I would next introduce industrial courses which would be adapted to every child in the community in which the school is situated. A modified form of the continuation schools of Germany and England should be provided for the boy who has to work part of the day for his living, so that his education may not be incomplete, altho he may have to stay out of a regular school. If the continuation school is once established, there is no reason why any boy who has a desire to learn, may not get instruction in the particular line of work in which he may be interested.

To sum up: The American boy must be conserved *physically* by giving him the best training possible thru work and play in the open air, in the gymnasium and by proper school room hygiene.

Second: The American boy must be conserved *morally* thru the agency of a well-defined and well-taught course in morals in the public schools.

Third: The American boy must be conserved *intellectually* by giving him an opportunity to attend school the whole year round and by giving him an industrial training which shall fit him for useful labor.

EDUCATION IN AGRICULTURE.

A. B. HESS.

Supt. A. B. Hess of Larimore, delivered a paper on "Agricultural Education" before the State Teachers' association at Bismarck, Wednesday morning.

The need of agricultural teaching in our schools is being recognized by teachers all over the state and Dr. Hess' paper is very timely. He has been an enthusiastic agriculturist for a number of years and has been recognized as one of the advanced teachers on the subject. As soon as he was elected superintendent of the Larimore schools he introduced a course of study and has had classes in agriculture and agronomy ever since. A year ago he secured a plot of 10 acres of land close to the city which has been used this year for demonstration purposes in the school. It has been of great interest and benefit and will be made more so in the future.

The following is Dr. Hess' paper:

"The basis materials of civilized life come from the farm, and are chiefly products of agriculture. The mechanical, industrial and commercial industries of the day are chiefly engaged in the elaboration, manufacture and dissemination of these materials. The home-making instincts of the race call loudly for the social, political and educational uses, interests and activities of these materials. As a science, a mode of life, or as an art, agriculture does embrace some phases of all other activities, but especially when considered in its scientific and productive aspects it should form the ideal introduction to science study in our high schools.

"Industrial education is not a fad but its effectiveness will be measured by the degree in which it concerns itself with the vitalizing needs of human life. President Buckham of Vermont university says: 'Agriculture is not a simple science, but a group of sciences, each of which is linked with all the others, so that you cannot know even a little of one without knowing something of the others.' We must agree with President Buckman in this statement and for this very reason based upon absolute facts we advocate the teaching of agriculture in the seventh and eighth grades. But I instantly hear a wail coming from superintendents and teachers: 'Why increase the course of the already over-burdened grammar department?' True, there is much, too much, to be done in these grades as at present outlined, but why burden the child with facts in arithmetic that no one in twenty will ever be called upon or given an opportunity to use? This same question may be applied other subjects of the grammar school curriculum.

"During this most important period, from the age of 12 to 14 years when the student really begins to do some thinking away from and outside of school influences; when he is approaching the transitional period wherein the break is so abrupt—from grammar grades to high school—we need to give the student a taste of real, vitalizing knowledge. The great reason for presenting this early is to afford an opportunity to appeal to and stimulate

the student's personal interest in the future pursuit of the study. Such an arrangement is "psychological and pedagogical" and really economical from two view points—that of the student and that of his parents. Why is there such a break in our school system between the grammar grades—the seventh and eighth—and the high school? What per cent of your students who completed the seventh or eighth or both of these grades have entered the high school? What per cent of the freshmen class drops out of school entirely? Where in the last six years of our course, do we lose the most students and why? True, many leave because they must help to support the family and the few dollars they are able to earn seem quite large. But how many of those giving such for an excuse were actually driven to it without any recourse? I believe that we should so present this subject to the students of grammar grades that they must see the inter-relation existing between agriculture and their material subsistence.

INTRODUCTION TO SCIENCE.

Beyond the shadow of a doubt there is no one subject that serves so well as an introduction to science study as that of agriculture. Pure science may appeal to a few students through a compelling curiosity as to its actual or possible applications, but applied science if properly presented, at once compels attention and appeals mightily to the student at this age of adolescence. I am inclined to the impression that our students would derive much advantage that if we had a six year high school course beginning with the seventh grade. This would facilitate the extension of the unit credit system; establish departmental work, secure broader culture and prepare for the widest possible range of differentiated courses.

"Individual differences begin to assert themselves about the 13th year. These differences continue to assert themselves and these economic interests and ambitions must be stimulated in school or the students seek them in the store, factory or other employment. I firmly believe that general elementary agriculture possesses the qualities that appeal to the student and make more effective the purposed study of the remainder of the course. If this work is not done in the seventh or eighth grades then it should be given to every student in the high school as the first-year science conception. Let me quote from the Experiment Record Vol. XXIII, on this point: "So much of agriculture as is embraced in a first year science conception should be known to every student, boy or girl, and every high school course as a matter of general intelligence, information, culture. Though the high school girl be destined to live her life in a city home, perhaps never to work with her own hands, saneness of educational ideal requires that she should at least know the source materials of her daily bread and means of shelter."

Every high school student-boy—should be educated to know that there exists a close relationship between agriculture and all other industries and vocations. At least one year's work in distinctive domestic science for every girl should be accompanied by the first year's work in general agriculture. Either line of these industrial sciences could then be systematically developed from this introduction from those who wished to elect the dis-

tinctive agricultural or domestic science courses, and with such motived introduction the high school course in general science could be economically, rationally and pedagogically presented in the remaining years of the course.

BASIC INDUSTRY HERE.

The student who becomes interested in agriculture as the great basic industry here in North Dakota will acquire a knowledge of geology, environment, geography, botany, plant physiology, biology, forestry, horticulture, history, chemistry, arithmetic and similar subjects as they come under his personal observation and first hand knowledge. The problems in arithmetic which he learns are based on transactions intensely interesting and familiar. The geography is not of foreign countries, distant states and unknown industries, but geography as applied to the particular community and the condition of the soil as a result of weathering and decomposition. His study of a handful of common soil at once carries him back to its formation—geology, back to its composition and fertility—chemistry, back to its ability to produce strong, vigorous plants, fungus resisting, and seed producing—botany. Then this plant absorbs nutriment from the soil and air and passes this food by means of soil-water to all parts of the plant by gravity, osmosis capilarity—physics. Then this plant and its fruit or seed at once becomes an article of food to either man or beast or both and its use may thus involve a study of zoology, of human physiology, of animal husbandry. Then carry this analysis still farther and we have the production, transportation and general distribution of the plant and its products and we have the various phases of commercialism. Thus we rapidly see that no other subject possesses so much or involves so many other subjects inter-related and inter-dependent. Just from what avenue we shall approach this subject of agriculture of which civilization is the ultimate and logical product, remains to be worked out. But one thing is certain that with this broad viewpoint a student may be led to seek truth for truth's sake, but its commanding appeal will make his work purposed and complete.

EDUCATIONAL EVOLUTION.

"We are on the verge of an educational evolution. Enlightened thinkers are beginning to advocate as ideal education the sending of the boy to the agricultural school or college where he fills his mind with practical, useful and scientific knowledge of his future occupation, and at the same time to enable him to employ his hands in the application of such knowledge. If the boy learns how to make two blades of grass grow where but one grew before, he will return to his home satisfied with his occupation as one of the 'learned professions.' But for the girl, well, she must have a knowledge of domestic art, of domestic science, of home sanitation, home economics, home decoration, the care of children, home nursing, therapeutics. She must be taught how to transform the drudgery of the housework, to love her duties as most sacred, to get her 16 years of training, but above all to possess a willingness and an insatiable desire to return to the home and become the very queen of the household, a pure, strong-minded, womanly woman, from whose center there must radiate an influence almost divine."

All this may be very nice but we must cry out "Hold!" lest we move to the extreme of vocational schools and forget our liberal or academic education. I believe that a crying need in North Dakota today is for agriculture sanely presented in our schools. We must meet and supply that need, and the quicker we do it the greater will be our services to the rising generation.

The state high school board has appointed a committee to prepare a syllabus on and determine what shall constitute a unit of credit in agriculture. I shall therefore not attempt to suggest an ideal high school course in agriculture. I shall content myself with making a few suggestions on the presentation of the subject from a practical and an experimental viewpoint.

GET AWAY FROM TEXT BOOK.

Get away from the text book once in a while and take your pupil out into the neighboring wheat fields—the real text book. Hold a barrel hoop horizontally above the standing grain, then let it drop to the ground. Count the number of well matured heads within the whoop; then rub out a few heads and count the kernels. Estimate the number of kernels within the circular whoop. Then determine the yield per acre; then on a quarter section. This is applied arithmetic. If the grain has been cut count the stalks thus cut and the number of heads and kernels remaining on the ground. Determine the loss on an acre thus on a section. This is arithmetic and economics. Many similar illustrations should be given to stimulate purposed study.

Plant diseases should be studied with especial attention to those most prevalent in the community. We have taken our classes out into the gardens and truck patches right here in North Dakota during the past few weeks. Among other things we found downy mildew on cucumbers, potato blight, tomato leaf-blight, all of which could have been prevented by an intelligent spraying with Bordeaux mixture; diseases of cabbage, bean, pea, radish, beet and carrot were quite prevalent, yet no effort to prevent or cure the same was made. Where remedies for these diseases are known have a spraying demonstration and you will be surprised by the interest you have thus created. Visit an alfalfa or clover field and examine the nodules for stored-up nitrogen and tell the students of the power given to this class of plants—the legumes—to absorb this nitrogen from the air and deposit it in the form of these nodules.

Cut a lemon in halves. Remove some of the pulp and juice, place therein some ink. Apply granulated sugar to the lemon—watch the ink rise to the top of the sugar. Apply loaf sugar to the second half. Compare it with the first half. Apply powdered sugar to a second lemon and compare with the former. Then take some fine sand, some gravel and some good loam and make a similar application and you have a clear demonstration of the power of capillarity. Apply these deductions to the cultivation of the soil and preparation of the seed-bed.

Take your class out into the garden and study the vegetables; into the potato fields, into corn fields, into groves. Visit the dairy barns, the fruit farms, the poultry farms; study every horse and cow you possibly can.

Approach the study of general science through avenues of observable realities and you get a hold on the student that carries him to the completion of some purposed course.

Established school gardens and experimental plots where the students may apply their book-knowledge and begin at once to reach out into avenues heretofore unthought of or dull and uninteresting. Let the boy become a producer and a searcher for new truth—get him to grow a few trees at home, some flowers, vegetables and to bud, graft, cross-fertilize, etc., and you tighten the cords that unconsciously bind him to purposed study and investigation. His zeal will become contagious and he inoculates his neighborhood with a desire for ultimate truth. He sets up in their minds a noble discontent with present conditions and they, too, want to know.

SOME SUGGESTIONS.

Then co-operate with the county superintendent in the corn growing contests and urge your boys to enter the contest. Procure for them the bulletins from the agricultural colleges and the U. S. department of agriculture; Bowman and Crosby's book on corn is a splendid work. Get them to study these for special points and in your experimental plats assign a plat to the boys for this purpose. If the county superintendent does not hold a contest hold one of your own and turn it into a corn school for two or three days, getting the professors from the agricultural college and university to give talks informally to the boys and you will establish real enthusiasm in your community.

Take an active part in the county and state fairs; in the local farmers' institute. Co-operate with some of your leading business men in organizing and maintaining a farmers' club. Get the club to meet in the school building, inviting the students specially when you have something above the average session. Prepare a few talks on some phases of industrial education and give them to the farmers. You will add interest and stimulus in educating the farmer and his children.

Take advantage of the university extension work as provided for by the state university and agricultural college and it will help to halve the burdens and double the blessings of our high school life.

Let this association urge upon our representatives in congress the passage of the Dolliver-Davis bill and we shall be given federal aid in the establishing of agricultural high schools in our state. Then if we can secure from the state legislature some legislation looking toward this same end or more particularly the county agricultural schools we shall be in position to bring to these boys and girls just what they so much need to cope with the rural problems of today. It seems to me that there are wonderful possibilities right here in North Dakota if we only go at it intelligently and systematically and make it a vital part of our educational system. What tremendous possibilities lie in these fertile prairies of our sun-kissed state! Shall we develop these possibilities and resources and keep the best blood of our state—our young men and young women—right here in North Dakota and on the farms instead of sending them into the various professions and out of the state to seek employment and thus arrest the development of our

only great resource—the farm? Agricultural high schools or schools giving a full course in agriculture with experimental plots have been established in Iowa, in Minnesota and in Wisconsin. In Dunn county, Wisconsin, the plan of agricultural schools has met with most gratifying success.

MUST SET PACE.

The high schools in the cities and villages must set the pace for the rural schools—must supply what the rural schools cannot give because of their overcrowded curriculum. Here is a plan by which both rural and city schools may offer their boys a ten days' outing and a schooling of incalculable value.

Let the high school principals and superintendents of the county meet with the county superintendents and select some suitable farm, Chautauqua grounds or fair grounds for the establishment of a boys' camp. To this camp invite all the boys of the county interested in and pursuing a course in agriculture. Then organize your camp with the minutest exactness with mess tent and a responsible leader for each sleeping tent.

The program should be wisely planned and should include the raising, judging and scoring corn and small grains, the judging and raising of live stock, inspirational talks on character building, some military tactics to teach promptness and decision and athletics of all descriptions. Select for instructors those men intimately acquainted with conditions in the county and abundantly able to bring to these boys the newest and best in the various lines.

Some things may not be too well appreciated by the boys—some of them, probably—among which are the religious influences, the rigid military discipline and possibly service as cook or waiter. But the influence of a strong, clean young man as leader cannot help but add much to the formation of strong character. These leaders are their counsellors, doctors, teachers and comrades day and night. (Write to County Superintendent Miss Field of Clarinda, Iowa, for the results of her boys' camp held this summer and you will be amazed with the results obtained).

Ten days thus spent in a boys' camp is worth more than a dozen farmers institutes, county fairs, or the bookish instruction given them throughout their entire course. A plan somewhat similar to this might be adopted for the girls pursuing the domestic science course.

If time were to permit me we might extend these suggestions indefinitely without philosophizing but you get my idea. I do not want to be misunderstood on this subject. I do not favor the lessening of our emphasis for a thorough scholastic literary education—let that phase be the best possible—but as phase of science study for our high schools we can give nothing better than a year of general agriculture, to be followed by as many years work as the conditions in the high school and the locality demand.

EFFICIENCY IN MANUAL TRAINING AND DOMESTIC SCIENCE.

E. R. TOMPKINS, GRAND FORKS.

I shall assume that there is no longer any question in the minds of our teachers as to the value of public school work in the manual arts. There may yet be a few who think it more valuable and in far better form to know that certain nymphs gave a Greek hero a helmet which Vulcan made for Pluto, and which rendered him invisible, than to know that Thomas A. Edison invented the incandescent lamp and made it possible for Niagara Falls to light a whole city with it twenty-five miles away; and yet we don't believe one word of the former story while we accept every word of the latter.

The movement away from this latter view became noticeable in the meetings of the National Educational Association about 1883. By 1887 the subjects of manual training and domestic science were given serious attention by this great body of teachers and by 1894 they were recognized as integral parts of our school system.

Now that we are confident of the need of a closer harmony between the school and the busy world which surrounds it we seek for the subject matter, the equipment and the teacher which will bring it about.

THE TEACHER.

As the most important of these let us think of the teacher. Some school boards and principals argue that anyone who can cook and sew can teach these branches and that any good carpenter can teach manual training. We see evidences that the folly of this logic has been discovered in the fact that many school boards now consider no teacher for either of these subjects who is not, in addition to being a good cook or a first class mechanic, a college graduate.

Manual arts work has been taught with good results in some cases even by janitors but these cases are rare indeed and much harm can come from this view of the teacher. It is even reasonable to suppose that he should be an individual able to command a salary greater even than that of the teacher of the older subjects.

The subject matter of algebra or history or Greek has, thru many years, been so thoroly organized that teachers of even mediocre ability can handle them with fair success. With the progressive nature study teacher we find a difference, and with the manual arts teachers it is even more prominent. Inefficient teachers will devote in these subjects to work which is valuable only as busy work. Indeed their work may be an absolute detriment. Habits of shiftlessness, carelessness and dishonesty may be cultivated to such an extent as to render their work of negative value.

Values then in manual arts work are determined by the organizing ability of the teacher. He must have more of this than teachers of the older subjects if he is to attain to the same degree of success.

He must not only be a teacher but he must be a master mechanic. The combinations of mechanic and teacher are rare and hence can command, for

the present at least, greater compensation.

After an efficient teacher has been found schools should not expect him to act as school carpenter if they expect good instructional work. School boards often think the ability of the manual training teacher to hang doors, fit windows, put up coat racks, etc., should be put to practical use. This is mighty poor economy. Every efficient manual training teacher can do good work as a practical carpenter or as a teacher but few if any can do school carpenter work and good teaching at the same time. Those who hold the former view of manual training do not think of the shop as a school, they regard it merely as a workshop.

Teachers of shopwork should have at least as much leisure time as those of other subjects. Everyone who has taught the older subjects as well as the manual arts will agree that the successful presentation of the latter consumes the greatest amount of nerve energy.

Lastly the teacher should be thoroly in sympathy with boys and boyish desires. If he is to get the best results he must gain the confidence and good will of his boys and if he is to gain this he must be one interested in every boyish sport from the building of a whirligig to the "coming aviation meet" on the roof of Jones' woodshed. He must be a person of the highest ideals; one who enjoys poetry, music and all kinds of art.

EQUIPMENT.

I have given more to the question of teachers than is needed for either equipments or subject matter. A good teacher can do fair work even with poor equipments and if sacrifices must be made they should be in favor of getting the best teacher rather than the most elaborate equipment. Of course, the better equipment will render the best work possible and the most of it. Whether a pupil be in the art room, the literature room or the shop he should be surrounded as nearly as possible with ideals. An impressive shop is certain to have an inspiring effect upon all who enter it. While shops need not be elaborate everything in them should be of standard value. They should certainly afford facilities for work without undue loss of time and energy. Machines are excellent indeed and the common idea that the expense of them is prohibitive borders on the ridiculous. There is scarcely a town in North Dakota but what boasts of its automobiles. When a single individual can afford such a luxury is it not folly to suppose that a small amount of machinery is too expensive for the manual training shop which serves an entire city? The cost of any good touring car would equip almost any high school in North Dakota with a complete set of the finest wood working machines.

Some may feel that machines are too dangerous for the high school boy. We must grant that they *are dangerous*; but so is strychnine and gunpowder, two very helpful agencies when rightly used. But the danger from these machines is greatly overestimated. While we often get cuts and scratches in our shop they have been, without exception, from our hand tools—our chisels, our plane irons and other bench tools. Thus far in Grand Forks we have been fortunate enough to avoid even scratches in the use of our machinery.

Of course, no boy should use a machine until he has shown his ability to perform the tool process by hand. No one should be allowed to prepare a "glue joint," on a jointer or cut tenons with a circular saw until he has several times demonstrated his ability to do these things by hand. When the performance of a process becomes automatic with a boy; when it no longer engages his entire attention, he should be given the machine and thus acquainted with common industrial processes.

COURSES.*

Lastly we must consider the course of study. It should be as broad as we can make it. We should not endeavor to turn out a carpenter or a machinist; that is the province of the trades school; but we should endeavor to give such a variety of subjects as would enable the boy upon its completion to decide as to his vocation in life, whether it be law, medicine, or industrial work and if it be the latter we should have so familiarized him with all the trades as to enable him to select the one which appeals most.

In the giving of these varied lines of work we must see to it that the practices of the very best mechanics are followed. So far as we may go in any particular industry we should keep absolutely in harmony with the practice of the best tradesmen in the work.

Too much stress cannot be placed upon good technique. Nowhere in the school curriculum do we find such an opportunity to cultivate habits of system, definiteness and perseverance as in industrial work. If we accept careless or inaccurate work we lose an opportunity for the most valuable education which the school can give.

We should watch, too, that our courses should not become too narrow. Our shopwork should be thoroly organized and that too in a way which will lead to a need of mathematics or science or even possibly of languages or English. We should fit the pupil for the life he is to live.

DOMESTIC ECONOMY.

In closing: it may seem that I have given an undue proportion of my time to manual training. What has been said in regard to that will apply with equal force to domestic economy. In both cases it is very important to have the work considered as a part of the general curriculum and not a "special subject" with no connection with the regular studies.

In domestic science especially there are so many points of contact with the other subjects that the entire curriculum may be enriched by its introduction. In grammar grades with arithmetic, geography, history and nature study, in high schools with physics, chemistry, etc.

In domestic science many schools make the great mistake of thinking that domestic science is merely cooking and that in order to be what is called "practical" all relation to science and other allied subjects must be omitted. As a matter of fact that branch can be practical *only* when it is somewhat scientific; that is, the reason *why* must be well understood in order that the practical results may be the best. At the same time the interest of the student is stimulated both in science and in cooking, and the mental discipline is increased.

MORAL TRAINING IN THE HIGH SCHOOL.

*What are North Dakota High Schools Doing and What Should They Do
Toward Efficiency in Moral Training?*

E. R. EDWARDS, MINTO.

There has probably never before been an age in the history of the human race which has made such strenuous demands upon the character of the individual as the age in which we live. In certain quarters we hear a great deal about the "sterling qualities of the Puritans" and supposed decadence of moral fibre in our day. The colonist was virtuous largely from necessity; economical because he had to be or starve; free from avarice because there were no fields for financial exploitation. Such a character as his would likely break down under the strain and the temptations of our 20th century life. It is much harder to be good today than it was in the time of Miles Standish and John Winthrop. Yet we are told that dear old Miles raged and swore when John Alden won fair Priscilla. We are prone to hold Standish up as an ideal to the modern 8th or 9th grade boy who perchance has had no better success with his Priscilla, and besides is unbearably tormented, perplexed and annoyed by technical English grammar, algebraical surds and absurds and other things equally nonsensical but too numerous to mention. I verily believe that the high school boys and girls of today have more and greater temptations to face and overcome than any that ever confronted Standish and Winthrop, simply because society today is vastly more complex and the opportunities for evil doing far more numerous. Hence the growing need of stronger and more effective characters.

Effective character means intelligence to know right and will power enough to do right. To both of these the modern world is yearly adding new burdens. Our environment is very complex and is constantly becoming more complex. The youth of today does not tread simple paths where instinct can be relied upon as a safe guide for conduct. We live amid surroundings of man's creation,—“a place where instinct is not at home,” a place where life's problems can only be solved by the keenest minds and the highest intelligence, coupled with the most sterling integrity.

Any thoughtful person must stand aghast when considering the problems knocking at our doors, problems not to be solved by our generation, but problems constantly growing greater, to be handed on for solution to the next generation, the boys and girls in our High School today. The general disagreement among honest students of social problems but shows the great difficulty of the riddles of our day.

There is certainly need of a new social-moral intelligence to deal with these complexities. “Who is my neighbor?” is a much harder question than ever before. Man no longer deals face to face with the people he knows. Employer and employee, buyer and seller, producer and consumer, are separated by a gulf which leads naturally to mutual ignorance, indifference, distrust, and even hatred. The product of industry now follows such a long and devious course, from the painful and often degrading labor of pro-

duction to the comfortable consumer that the consumer knows not and cares not whence comes his luxury, and is too indifferent to face squarely his far off and unknown neighbor. Yet it is truer than ever that no man lieth unto himself, but it was never before so easy to forget the truth.

In addition to added strains upon the social and moral intelligence, consider the strains put upon the will power. The very abundance and variety of art and manufactures make the fundamental ideal of self-control difficult. "Civilized man wastes upon perishable things the energy that should be devoted to a higher and truly human life."

Since the demands upon moral character are so great in our day, what can we honestly say of the emphasis being placed upon morals in our secondary schools of North Dakota? The axiom that character is the aim of education, is still a part of our formal pedagogy. It is supposed to dominate our teaching; but what are we actually doing? Does moral training have the place in our educational thought and teachings which it had in former days?

All of the educational writings of Plato, Aristotle, Comenius, Montaigne, and Milton are dominated by the moral element. The most striking passage in the "Republic" insists that all literature selected for the curriculum, "shall be adapted in the most perfect manner to the promotion of virtue." The philosopher unhesitatingly rejects those passages of the sacred Homer and Hesiod, which fail to inculcate true principles. Here is a true lesson for us. I verily believe that we could reject even some of the sacred prescriptions of our High School courses in English to the moral as well as the intellectual profit of the boys and girls. I wonder just how much of our High School English is really effective in inculcating moral ideals of the kind our world needs? No subject should afford more opportunity for placing moral emphasis when and where it belongs than Literature. I wonder if our classics have been chosen with an eye single to the promotion of virtue, integrity and a love of right for right's sake? For our answer, open the Manual of North Dakota High Schools to page 26 and note the following: "The high school work in English has two *main* objects in view: First, to assist pupils to a command of correct and lucid English, both spoken and written, Second, to enable them to read with accuracy, intelligence and appreciation.

The first object requires instruction in grammar, (the Lord pity the pupils) rhetoric and composition. The second object is *sought* (is it found?) by the use of *certain* masterpieces and by the study of literary history." Not a word to teachers about developing character, establishing high ideals, emphasizing moral truths, or gaining a knowledge of right and wrong with volition to do the right. On page 28 we read further that "in the study of masterpieces the *aim* should be primarily to arouse the admiration of the pupils." Moral instruction seems not to have been considered worthy of mention, and yet the people who wrote this are persons of unimpeachable character, high ideals and genuine intelligence. Is it any wonder that our young people are so careless and unmoral and occasionally immoral when we so neglect the chief end of education? You see, we have been so anxious about grammatical constructions and agreements, translations and mathe-

mathematical solutions, that we have almost entirely ignored the most vital of all of our duties and opportunities.

Montaigne would have history taught in such a way that the teacher "imprint not so much in his pupil's mind the date of the ruin of Carthage, as the manners of Hannibal and Scipio; nor so much when Marcellus died, as because he was unworthy of this *devoir* he died there." Open the Manual again to pages 37 and 38 and see if any suggestion of Montaigne's ideal of moral lessons from history is suggested to teachers of history in N. D. high schools.

We find in Milton's noble Tractate his definition of Education which magnifies the moral aim. He says: "I call, therefore, a complete and generous education that which fits a man to perform justly, skillfully and magnanimously, all the offices both public and private, in peace and war." In masterpieces he says, "The main skill and ground work will be to temper the pupils with such lectures and explanations upon every opportunity as may lead and draw them into willing obedience, inflamed with the love of learning and the admiration of virtue, stirred up with the high hopes of living to be brave men and worthy patriots, dear to God, and famous to all ages." Is this the ideal of our teaching? It certainly is not or we would not need to be considering the question of moral training today.

Dr. Arnold of Rugby had always one supreme ideal—moral thoughtfulness and devotion to duty. All else was to be auxiliary and subordinate.

In order to understand the sacrifice that Horace Mann was willing to make in the cause of education, one has but to remember that it was his belief that education is the only force that can elevate character; all of his lectures, labors, etc., "are inspired and penetrated with the moral aim." Do we find any such emphasis placed upon the morality in our current educational literature? Do we find teachers whose chief aim is in reality character-building in our schools today?

The justly famous Report of the Committee of Ten is probably the best known and most authentic educational work in America, and yet one could read it from cover to cover and almost never be reminded that moral education exists or ever existed.

Here, then, we have before us the present situation. What can our High School do as to the remedy? What has caused this elimination of the most vital element in secondary education? An overcrowded curriculum. A curriculum still encumbered with relics of an age long since gone. The place formerly occupied by Moral Training is now given up to the intellectual. Moral education has not been deliberately thrown aside but it has been crowded out by the growing demand for intellectual courses.

At present Physical Education which is the foundation for all growth whether moral or intellectual, is receiving some sensible attention. There must be a sound physical basis for character. Vocational education is gradually gaining ground. This also has a strong moral influence. It is unreasonable to expect a sound character in a person unqualified to earn an honest and adequate living. Greater attention will be given to moral training in the future as we reflect upon the necessity for such training in our day. Moral training like manual training can not be taught suc-

cessfully from a book. It requires the right sort of a teacher and then such training will be gained in the shop, in the gymnasium, in the school garden, and more often than at present in the class-room.

In the moral training certain principles are fundamental. In the first place the pupil must acquire the proper mental attitude. If the work of bringing about a proper mental attitude on the part of the pupils be thoroly done, the outward acts will take care of themselves on all ordinary occasions. In the second place, it is poor pedagogy in emphasizing moral truths as in emphasizing any truths, to point out pitfalls. To the average youth there is something attractive and even fascinating about the forbidden way. Therefore, be careful about adverse suggestions. In the third place, remember that character grows strong upon temptations overcome and weak upon those yielded to. Therefore, a young person should have about all the temptation he can certainly overcome and no more. We often err by putting too many and too great temptations before young people, then further err by condemning them openly for yielding. We should allow some freedom to the pupil who is anxious to acquire experience on his own account, but we should follow him thru it to see that his recovery is complete. An effort to impress a moral truth is never complete until the pupil is led to determine in his own mind just how the wrong doer might secure the desired ends in some legitimate and praiseworthy way. "Wise forethought is the father of every worthy deed."

Moreover, in deprecating evil we must place the emphasis upon the act and not upon the person.

Many teachers if they attempt moral training at all attempt it too publicly. The value of private talks with pupils about their habits and conduct, which they least suspect the teacher knows, can scarcely be overestimated. If your pupils have sufficient confidence in you to acknowledge their faults, and tell you their troubles, you can be sure that you have a moral influence with them which is entirely wholesome. Pupils like to know that they are observed and thought of by the teacher who is perfectly fair and honest with them, and who always respects a "square deal."

Again, many of us forget or fail to realize that there is more honor among the so-called "tough" boys of the school than they are generally given credit for. Most such boys are no sneaks. They are often so courageous in their offending conduct that they may be converted into powerful exponents for right.

If a teacher can develop in himself a genuine feeling of friendship for the boy or girl who is in any sense low in the scale of moral conduct, and will in addition to this privately pledge everlasting fidelity to his charge, the battle for moral rectitude is already half-won. The true, earnest teacher finds his way into the life of every class of pupils that comes to his charge. He finds many undeveloped resources and latent energies, that give unfailing promise of a new creature.

"The work of discovering the hidden beauties of the soul in young moral delinquents, becomes in time to him who has the proper insight both fascinating and inspiring."

I appeal to you, fellow teachers, in the name of the very worst and wickedest boys and girls in your particular school, make them your confidants and win them for a higher and better type of life.

Moral training is simply the application of good, sound, common sense to conduct and association. It requires for its success in our high schools just the things which make our other work a success, viz., genuinely true and earnest teachers, and a full realization of the need of such training today. It cannot be successfully taught by idle "preaching" or bombastic and wholesale condemnation. It can be successfully given thru the earnest and sensible and seasonable precepts of an earnest, sensible teacher whose character and habits will stand every test suggested by his precepts.

WHAT ARE OUR HIGH SCHOOLS DOING AND WHAT SHOULD THEY DO TOWARDS EFFICIENCY IN HYGIENE AND SANITATION.

J. F. MCLAIN, TOWNER.

We are educated, so says an eminent authority, "thru and by all the processes, activities and influences that occasion subjective changes in us, whether these changes are physical, mental, moral or spiritual."

The late Dr. Fitch of England gives the following definition of education: "Men are educated from infancy to the grave, by all the sights and sounds, the joys and sorrows, which they encounter, by the character and behavior of their friends, the nature of their surroundings, and by the books they read."

John Stuart Mill gives the following definition of education: "Education comprehends even the indirect effects produced on character and on the human faculties, by things, the direct purposes of which, are different, by laws, by forms of government, by the industrial arts, by modes of social life; even by physical facts not dependent on the human will, by climate soil, and local position."

Dr. W. T. Harris, Ex. U. S. Commissioner of Education, gives a similar definition.

Dr. B. A. Hinsdale, of the University of Michigan, says: "Education is the process of transformation wrought in a man by all the agents and powers of whatever kind that act upon him from the cradle to the grave."

Teaching is said to be: "The occasioning of those activities in the learner that result in knowledge, power and skill."

From the above definitions it is easy to glean that education means the development of all the natural powers of the children.

Our educational ideals are therefore very similar to those of the ancient Greeks, who aimed to produce "A sound mind in a sound body."

If we may regard the foregoing statements as educational axioms it is clear, that in order to give a child "a square deal" we must respect, care for and cultivate his physical powers as well as his mental, moral and spiritual powers.

The intricate relation between the body and the mind, we may never be able to understand or explain. We know that a child's body is a wonderful machine, composed of several hundred bones and muscles, thousands of nerve centres and millions of nerve cells. We know or should know that this wonderful combination of organs and organisms is governed by laws, which ought to be as sacred as the Decalogue or the Golden Rule."

Nothing happens without a cause, and to check or control a cause is the easiest way of preventing evil results. In certain asylums for the insane and feeble-minded, physical exercises are being used for these poor victims, frequently with excellent results.

How much more satisfactory it would have been to have anticipated the trouble and thus removed the cause. In that epoch making book, "The

Education of the Central Nervous System," by Reuben Post Halleck, we read of the immense advantage a child has, who inherits a healthful, beautiful, stimulating environment; over the child reared in a back alleyway in the city, without green trees, flowers and attractive playmates.

Mr. Halleck states in another place, that a skimmed milk diet will lead us to think skimmed milk thoughts and how the great nation of beef eaters (the English) have given us the greatest literature the world has ever seen.

We are under obligation to respect and care for the child's physical nature as much as we do his mental and moral natures. The teacher who injures the delicate body and nerves of a child in order to make him write up a few more essays, read a few more pages or work a few more examples than his strength warrants him to do in the given time, becomes a malefactor more than he is a benefactor. The school that forces children to remain in unsanitary rooms, without intervals of rest and exercises, becomes a fraud instrument of oppression.

Those sacred laws of hygiene and proper living we should heed when the delicate bodies of children are put in our charge, as the very destiny of the child is in our hands to improve or mar. He who poisons the water at the fountain head pollutes the whole stream in its course to the sea.

I once asked a competent specialist of the possibilities of a course of exercises that might lead to a better physical development of the eyes. His answer was very favorable, saying that he had often thought of the same thing himself and that he was anxious to try such a course.

We all know that in the external part of the eye is a system of delicately balanced muscles, while in the inner eye is the crystalline lens and other delicate machinery which adjusts the eye to seeing long and short distances. Myopia (short-sightedness) is generally caused by excessive reading with insufficient light. I deem it would be unprofitable for me to enumerate further facts upon the eye, most of which my hearers are familiar with.

If a competent specialist were here with his charts I am sure he could soon instruct us how to detect many deformities and weaknesses in the pupils' eyes.

Prof. John C. Eberhart, of Dayton, Ohio, in a paper before the Department of Superintendence, at Louisville, Kentucky, explained how teachers might give pupils pieces of paper and after writing their names, require them to cover one eye and each copy from a chart. An intelligent study of these papers detect some of the weak eyes and also detect which eye (the right or left) was defective.

Mr. Eberhart drew a dark picture (for I heard the paper) of the condition of children's eyesight throughout the country. I remember he made a plea that we should read the hand writing on the wall and try to check this great wrong that is being imposed upon innocent victims.

In other parts of the country examinations are being made of the teeth, and surely there could be no better opportunity to stop suffering by heading off the cause.

Similar examinations could be made for throat troubles, adenoid growths etc.

But who shall we call to our assistance, in these matters? There are

the local doctors, dentists, osteopaths and Christian Scientists. There are those upon our school boards who might favor the employment of all of these. There are others who would call it a graft to employ any of them. If Dr. Jones is employed Dr. Smith will be offended.

We remember the famous conversation between Mr. Dooley and Mr. Hennessy in Dooley's Philosophy, and how Mr. Dooley concluded with the remark that, "If the christian scientists were a little more scientific and if the doctors were a little more christian it would make little difference which we employed."

It is certain we could not work a revolution in the hygiene of school life in a few weeks, and no doubt our pathway would be beset with difficulties to even make a little progress. Nevertheless, I believe we should have the courage of our convictions and begin a campaign at once. Four times during the past three years have our local doctors made examinations of the Towner public schools. On one occasion medicine was left and certain teachers were delegated to apply the dope.

If it were possible, it would be a humane act to furnish a rest room where a sick child might recline and be attended to.

The lighting of a room and arrangement of the desks is important and each child should receive individual attention.

An opening of one foot at the top of a room will admit more light than two feet at the bottom. The sun being above us and our eye brows being placed above our eyes indicate that the light should be admitted from above. If roller blinds were placed with the roller down the blind could be drawn up with a string. Any portion from the entire window to a few inches could be used to admit the light. This arrangement will spare the spring as it is relieved of the weight of the blind. Even where windows are badly placed or are on both sides of the room the light can be controlled.

Then there is the water supply. The dirty, sloppy drinking pail with one cup is hardly fit for savages. Where good city water is available good stand pipe drinking fountains are the best. In one North Dakota town, (I refer to Northwood, N. D.), a philanthropic citizen presented drinking fountains to the school. In this town there is not city waterworks.

With us there has been some trouble with skin diseases and some children were sent home. I believe we should have gone one step farther and sent children home for filthiness and informed their parents to clean them up before they sent them back again.

The fact that a child breathing into a tight box 3ft. x 5ft. x 2ft. for one minute, will render the air unfit for breathing; proves the necessity for an abundance of fresh air.

Sunshine and fresh air are among "God's free gifts to Man," and why should they be bottled up? Until there is a trust to put a monopoly upon them we should claim our privileges.

President Northrop of the University of Minnesota relates an experience he had while at Yale. Failing health forced him to leave college. He was told that he probably had consumption and that in all probability he was not long for this world. Gloomy and despondent he set to brooding over the situation. The thought of giving up his promising career and yielding this

sweet life so young seemed horrible to him. "These lungs are for breathing," he said to himself, and with this resolution he rose from his couch and determined that if he must die to die fighting. Needless to add that he did not die. Pres. Northrop afterward remarked that had it not been for a little determination he might have been under the sod.

How many like instances might be noted where a life was snatched almost from the jaws of death.

Let me add again: how much more profitable would it be to anticipate the danger and avoid them by removing the causes. We need to learn more of the science of perfect living.

I believe, we as principals are failing in our duties if we do not see to it that physical exercises are given in every room at frequent intervals.

Let us return to the school room and make a few remarks in regard to cleanliness. The wood work should be thoroly cleaned and disinfected several times a year. The walls should be cleaned or kalsomined, at least once a year. It is hard to get janitors to dust thoroly, and a feather duster is a dangerous instrument as it only scatters the germs that might lie harmless on the shelves. Lots of sweeping sawdust and saturated cloths is the best combination.

The Minneapolis Drug Company are putting out a candle made of formaldehyde which may be lighted and the germ killing fumes will soon permeate the entire room.

When the mists have rolled away and when we know each other as we should be known, when we have learned and practiced more of the science of perfect living, people will look back and realize how inexcusably neglectful we have been.

THE HIGH SCHOOL—ITS WEAKNESSES AND SUGGESTED MODIFICATIONS.

G. W. HANNA, VALLEY CITY.

GROPING OUR WAY TO BETTER THINGS.

Each of my fellow speakers on the program of this department is considering some specific defect of the high school, and with this number assigned to deal with high school weaknesses en masse, we should make a clean sweep of our troubles. However, this is much the same as other programs have been for several years. And our notions of our high schools are much the same as the feeling of discontent about the high school, expressed by school men and laymen everywhere. It all intimates that there is practically no dissent from the belief that we have a vast amount of revolutionary work before us if we want to serve the public in the ways made possible and necessary by the radical changes in our methods of living.

EDUCATION FOR DEMOCRACY—SIGNIFICANCE.

I shall not attempt to make this discussion as broad as the limits of my topic—that would be as impossible as unnecessary, in this short paper. While we can have no time for pessimistic criticism of schools, and are necessarily conscious of the great progress already made in recent years, I believe that a broader conception of the purpose of education in a democracy would deeply affect the teaching of the great mass of teachers. Contrary to custom this would mean, among many other things, the education of the many rather than the few, education for society rather than the individual, the production of industrial and social units rather than mere educated individuals, preparation for cooperation rather than competition, education for life rather than for college alone.

GENERAL STATEMENT OF OUR FAILURE.

The high school is a public school, a school *of* the people and *for* the people, in their composite, rather than individual, character. I believe we can live closer to this principle than we do. Tho our high schools enroll a larger proportion of the entire eligible school population than formerly, yet they enroll a comparatively small portion of all and a relatively smaller number of boys than girls, and changes in these respects are needed. The high school is now a school of the most capable and of those least hampered by misfortune or other practically ungovernable circumstance. While the absolute demands of poverty keep a few out of high school, and some stay from sheer inertia, many quit because they can't see how they are to get their money's worth for attendance, many others because our work is not calculated to catch the involuntary attention, and another large number are sifted out because of sheer inability to keep the pace. Of this last group, some are incapable by nature and some are handicapped by misfortune. Can we not and should we not make better provision for all these?

HOW KEEP MORE IN SCHOOL.

Conditions are changing so rapidly that it seems that we need to take a new position toward a more general education, not only in grammar schools but also in the high schools. Democracy calls for a more general use of our high schools rather than merely a higher education of the favored few. We must preserve the rights of the child so unfortunate as to be born in poverty, we must move the inert by compulsion, we must appeal to the interest while developing a voluntary attention of those governed from without, we must appeal to the practical minded with practical work, and we must find a means for pupils of poorer mind quality and fettered opportunities to enjoy the benefits of a full high school training.

A BETTER STANDARD OF MEASUREMENT NEEDED.

The weak, the average, or the unfortunate pupil must fail when measured by an arbitrary standard of perfection, such as is established when marked upon a basis of absolute perfection and the quality of the test is suited to or determined by the high-grade pupils. He can succeed only when measured by his own possibilities. And this is the only fair way to rate any pupil's success and determine his progress, but it is not the customary way, and it is scarcely feasible under present customs.

WHY ARE WE SACRIFICING THE MANY FOR THE FEW?

We have been blinded into the notion that our work is being done for the benefit of some other school or college, or some employer—for those who are to deal with the individual after we are done with him, rather than for the benefit of the pupil himself or for society thru this pupil; and consequently we have jealously guarded our reputation for high scholarship by permitting nothing to represent us but high scholarship, instead of trying to make the most out of each individual and permitting scholarship to be determined by what we can make out of *all*, good, poor and average. It is not alone our business to care for the select few, to fit for college or any institution or occupation, nor to hold educational rank by so winnowing and sifting our pupils that some may receive our training and its after fruits and some may not.

HOW CAN THE POORER PUPIL BE ASSISTED TO AN EDUCATION.

Preparation for college or other technical work requires proficiency in the lines prepared for, and calls for stiff courses and definite standards of perfection, but is it not possible to have sufficient flexibility of course, methods of teaching, schemes of rating and standards of promotion, that the deficient pupil may not be frozen out until he has gotten all the good the high school can do him? It may mean that he should not be required to attain the arbitrary 75 per cent in order to pass, or it may be that the question of application should enter into the estimate, but abolition of formal examinations would reach the case more nearly than either. At any rate when the pupil goes out of school he may carry with him his record as accurately expressed as it is under the present regime so that he may

be taken for what he is worth, but he will have had the same opportunity as his schoolmate more favored by nature.

SOME PUPILS UNDERESTIMATED BECAUSE OF DEFICIENCY IN VERBAL EXPRESSION.

There are many things that make school work hard, and one of these is the school's and the teacher's criteria of the pupil's ability. It is generally conceded that expression is an invaluable means and test of learning. The expression is truly a great educating instrument, there is a great error in limiting expression to verbal forms. There is a deep feeling that what one knows he can tell. This is only a partial truth. The young and the old, the great and the ordinary, vary largely in their ability to express themselves in verbal language, particularly when time and consecutive order are elements or when the person is disturbed by other emotions, such as timidity in school.

NOT A SIGN OF WEAKNESS.

All great men are neither orators nor rhetoricians. Scores of history's Washingtons, Jeffersons and Longfellows could not make a speech. Wordsworth says, "There are many poets born without the gift of words."

OTHER VALUABLE FORMS OF EXPRESSION.

Moreover many thoughts are not susceptible of verbal expression, and much education, much knowledge and power, much usefulness to the world, do not carry with them or call for the power of verbal expression. Our artificial language is but one of an infinite number of forms of expression. The clenched fists, set jaw and flaming eye tell more than verbal threats. Music, art, sculpture, gesture, the tones of nature, and muscular expression in all forms, represent mental attitudes and thoughts.

NOT LESS STRESS ON EXPRESSION BUT MORE STRESS ON OTHER FORMS.

I do not decry the idea of striving to develop the power of verbal expression within the pupils's limits. The trouble lies in not recognizing the differences in pupils, and in making verbal expression the sole means of expression in school and the standard by which the ability of all pupils is judged.

THE PRACTICAL METHOD OF ATTACK.

Our teaching and our courses are both at fault in favoring the glib-tongued student, even tho shallow or ill-poised, as compared with the modest or "in-expressive" student of perhaps much greater intrinsic worth. To correct the error teachers must get a different notion of the evidences of power and growth. This idea must be recognized by the leaders in shaping courses that will permit of other forms of expression as a regular thing, the rank and file of teachers should be schooled to the view that a practical and usable form of expression is acceptable even if the pupil is not brilliant in definition and descriptions. Likewise our examinations and system of reciprocity in records should recognize this feature of human nature.

MUST RECOGNIZE ALL FORMS OF POWER RATHER THAN MERE BOOK POWER.

We must go still farther and recognize all evidences of power and interest, whether it has to do with expression or not. Time and again we have seen our brightest pupils and college mates go out into life and fall

flat, while many another in whom we had little faith has met with the highest success. We must learn human nature to the extent that we see what manifestations in school life contribute to the success in after life, and our Grants and our Emersons may be successful in school.

EDUCATION FOR EASE A WRONG AND DETRIMENTAL MOTIVE.

Education for democracy has ever been hopped with this idea, permeating both home and school, that an education, and particularly higher education more than common-school, was to prepare people for a clean handed occupation free from overalls and shovels, and struggle; that it would insure leadership or comparative ease or leisure or prosperity. This idea is accepted in blind faith and swallowed whole. The parent doesn't want his child to slave as he did. And the teacher argues with Johnnie, that if he doesn't get his lesson he'll have to dig in the ditch all his life. The idea permeates the school; and it has lead to dissatisfactions when the pupil begins to look for something there that he can use in his work directly. Or if he has accepted still more blindly and gets out into life to open his eyes, he expects to begin where father left off, to wear fine clothes and have ready money, to carry on large transactions only,—he scorns small transactions and humble service and hard labor, and is doomed to awake with a jolt or fail. Two things are necessary: (1) not to overestimate the real value of school to life, or to confuse the relation of school and life, and (2) to make school of some real preparation to life, particularly by introducing those features which give a wholesome respect for labor and teach that school is a preparation for life by making the school a little of real life.

EDUCATION FOR COMPETITION A WRONG AND DETRIMENTAL MOTIVE.

Another point of view that has been particularly detrimental to the best results of education is that the purpose of education is to prepare the pupil for the struggle for existence. Teachers and parents are pretty thoroughly saturated with the idea that education is given for the purpose of giving the individual some advantage over his fellows.. A democracy educates the individual for the good of the whole. The theory is that the whole should be educated and none therefore could receive an advantage. A democracy is a cooperative unit rather than a composite of antagonistic individuals. The wrong view of almost all those dealings with the school from both within and without, is responsible for the competitive tendency which has made the educated man in public life descend thru the various degrees of selfishness to dishonesty and private or public plunder.

Should the idea of cooperation rather than competition dominate our courses and teaching it would be reflected in ethical, social, civic, and in austrial training that would emphasize duties and responsibilities rather than rights and privileges and would develop each pupil into a safe and responsive industrial and social unit.

ARE THERE SUBJECTS IN THE LIST OF CONSTANTS AND
ELECTIVES WHICH SHOULD BE DROPPED TO GIVE PLACE
TO OTHERS OF MORE IMMEDIATE VALUE?

A. G. CRANE, JAMESTOWN.

Ladies and Gentlemen:

In order to secure definiteness in this discussion it will be necessary to define certain elements of the problem regarding which there is no very general agreement among school men. The entire discussion will deal solely with the problems of high schools. There is no unanimous definition of the ultimate purpose of education. The best statement seems to be that education should aim to develop in the individual his best social efficiency. To be socially efficient the individual must be able to maintain himself and family without being a drag upon the community. He must "pull his own weight." He must be so trained that in addition to maintaining himself he will not interfere with the efforts and rights of others. He must fulfill these two requirements and also possess sufficient interest in the activities of his fellows to cause him to consciously and persistently add his help to the progress of the community.

The purpose of public education is to improve the social efficiency of all its students as creditably as possible with the means and opportunity provided. It is not the province of the school to produce an impossible product. Improvement does not imply the necessity of producing uniformity. Individual differences in the raw material are so great as to make any attempts to secure uniformity appear ludicrous. Such attempts are often criminally wasteful of material resources and pathetically prodigal of lives and opportunity. These attempts often result in impaired efficiency due to misdirected development of original endowments. The public school of the future will give more recognition to the differences among the children and will strive not to develop a system capable of making all pupils alike in quantity and quality of attainment but will aim to give the greatest improvement possible to each child during his time in school. Given this ideal, our schools can not be criticized because all the children of all the people of the commonwealth are not exactly alike. The only valid adverse criticism then may be that the schools have not improved the social efficiency of the child as well as they should have done with their opportunity and resources. Tho the child may not finish any set number of grades or prescribed courses of study yet the schools may have given that child the utmost increase of social efficiency possible to him in the time and with the means at their disposal.

This fact of differences among children brings us naturally to the third principle which seems to be an essential condition for securing results desired in social efficiency. No mental attainment is possible without self-activity. We all recognize this fact but I fear that there are degrees of mental activity which we accept as conditions capable of fixing mental attainment which are far from being effective. To so attain a subject that

it makes an impression and affects the personality of the child requires that he think thru and comprehend the subject. He may recite it and believe that he has grasped the idea and his teacher may think the same yet the after effect shows conclusively that it made no impression on him. Look back on your own school life and pick out the things which actually educated you. They are the subjects you not only studied as tasks but ones which you thot about. Mental attainment which affects the personality is impossible without mental self-activity.

If we had a list of such effective subjects from the persons in this room we would discover another startling fact namely that no two lists would be exactly alike and yet practically all subjects would be present. I believe heartily that for any individual there are lines of thot which if not absolutely impossible for him are so nearly so that they can only be undertaken and developed by excessive effort. In such departments the individual must accept the fact of his inability and be content to develop the talents which he has. Few indeed are the ten talent men and many are the one talent fellows. The pursuit of an impossible line of thot for a student is an embezzlement of time.

Another much mooted question which enters into this discussion is that of cultural vs. practical subjects. A later speaker will undoubtedly give you a thoro philosophical definition of culture. Culture is often called the power to enjoy the highest things of mind and spirit. Plato defines a cultured man as "A lover, not of the part of wisdom but of the whole who has a taste for every sort of knowledge and is curious to learn and is never satisfied; who has magnificence of mind and is harmoniously constituted and well proportioned and possesses a gracious mind whose own nature will move spontaneously toward the true being of everything, who has a good memory and is quick to learn, noble, gracious, the friend of truth, justice, courage and temperance." Culture as commonly understood is a heart quality as well as a head attribute. School atmosphere gives culture often more than the contents of the studies. The order, quietness, thotfulness, and respect for others rights, good address, good pictures, music, intercourse with cultured people for the years of a student's school life often impart more culture than any books which he studies or reads. Someone has said, "Instructors teach the student but his associates educate him."

A practical subject is generally accepted as one such that its contents can be put to actual use. School and life are closely allied here. It is a common contention that the antagonism between cultural and practical subjects is inherent, that a subject can not be both cultural and practical. Some strong cultural advocates unconsciously appear to assume that any practical value in a subject is prima facie evidence of its total worthlessness as a cultural subject. The terms convey to such partisans the idea of antagonism of such mental exclusiveness equal to that of positive and negative properties in mathematics. The inevitable conclusion of such a view is that the more useless the contents of a subject becomes, the more its value increases as a cultural subject. My position is that there is no inherent antagonism between cultural and practical subjects. Both cultural and practical benefits may be derived from the study of the same subject. I believe, this so thor-

oughly that a subject which is useless in practical value must possess abnormally high cultural value to commend itself and it is always doubtful whether the cultural value can ever be high enough in an absolutely useless subject as to justify the expenditure of life, and energy in its pursuit. The uselessness of the subject should at once require that subject to prove its right-to-be while the fact that any subject is actually useful should at once be evidence in its favor.

In defining culture as power to enjoy the higher things of mind and spirit we may be simply exchanging difficulties. The highest things of mind and spirit may be as ambiguous and as provocative of controversy as culture itself. For my part I can conceive of no higher things of mind and spirit than the great problems opened up by science. We have too often conceded the claims of greatness to the intangible problems of philosophy and metaphysics when they may be the fanciful vagaries of dreamers and are considered profound, more because of their general unintelligibleness and the ambiguity of their wordy statements than because of any inherent greatness. The greatest and highest and most ennobling things are often concealed and overlooked because of their simplicity. Honest thoughts about the realities of life are often more worthy of cultural recognition than dreams about the unattainable. To be content with the practically attainable often shows evidence of more culture and intelligence than to vainly strive for what seems more theoretically perfect. From the stand point of an adolescent student from a family of low cultural attainments the pursuit of a practical study within his comprehension may give more cultural value than a useless subject with more theoretical cultural value.

Let me summarize the positions which are assumed as the basis in this discussion. First, social efficiency is the aim of education. Second, to secure as great improvement in social efficiency for each individual child as is economically attainable is the duty of the public schools. Third, no mental attainment is possible without mental self-activity. Fourth, a subject can be both cultural and practical and it is the duty of the school to find subjects which best combine both of them and to reject those which possess but one of them.

The statement of my theme would probably lead you to expect a list of subjects to be dropped from our programs and another list to be added. I shall give you my personal views before the end of this paper but I shall not assume to compile such a list for general use. I shall, however, try and suggest means of determining such lists which are already beginning to affect the problem. To attempt to prepare any set list of subjects for all pupils of a commonwealth, a city or even a single family is to attempt what is evidently unattainable. The differences in mentality are vastly greater than those in physical makeup. If we were to try and secure uniformity of physical stature, strength and attainments among the pupils of any school we should indeed be foolish. To attempt this in the intellectual realm shows an equal lack of wisdom. As was suggested in my introduction it is the school's duty to select studies so as to best improve the social efficiency of each pupil.

To accomplish this perfectly for each individual student is economically

impossible as it would require too great an equipment and too large a teaching force. Fortunately, however, in any given community the majority of students can be grouped in classes and tho we can never attain the ideal condition we can approximate it very closely. I shall point out two methods for determining which subjects fail to fulfill our requirements. One method is the old scheme of electives. I cannot enter exhaustively into the subject of electives in high schools but can briefly state some of the things which appear to me to be advantageous.

First, the elective plan allows the school to secure the element of interest which will induce mental activity without which mental attainment is entirely impossible. Interest should not be confused with caprice of taste. A subject may be taken in which the interest is awakened by careful tho and study tho the subject at first presented no very striking claims for interest or attention. The proper elective system outlined later is not a system of license but one of properly guided liberty.

The elective system demands better teachers thru the silent competition among teachers for pupils.

It improves the teachers and the instruction because mutual interest and aptitude stimulate both pupils and teachers.

The elective system and it alone gives opportunity for individual adjustments which will make socially efficient individuals.

The elective system trains students in the responsibility of choice. It stimulates them to independent tho.

The elective system gives pupils an opportunity for self-revelation. During four years of a secondary course the boy has many opportunities of testing himself, his aptitudes and abilities in different lines of tho. If when he finishes the course his knowledge is mostly negative it still is valuable. Economically and socially there are no sadder cases than those of men and women who have discovered their unfitness for their vocations, after it is too late to change. If our secondary schools can afford opportunity for the student to find his proper vocation they will have done much to improve the citizenship and the social efficiency of the country.

Continued use of the electives properly safe-guarded will automatically indicate the subjects which should be dropped from our high school courses and the demands for different courses will just as surely indicate the subjects which are to be added. As I have indicated, this method is not new tho of comparatively recent origin. It must be properly safe-guarded for like all other new-found liberty it is liable to become license as has been shown by some unfortunate experiences in the past. It has received, however, wider and wider acceptance as means were discovered for safeguarding it.

There are two so-called elective systems in general use. One of these is election applied to individual subjects thruout the course. The other system allows of an election of certain prescribed combinations of subjects called courses. This choice of courses must be made early in the first year of high school. I believe this is the most pernicious form of election. It affords no opportunity for the student to find his particular line of work. It forces the choice at the time in the student's life when he is least pre-

pared for it. After a mistake is made it is irrevocable without destroying the system of course election. It is but a variation of the prescribed, iron-clad, uniform program. The other method of election by individual subjects when properly safe-guarded seems to possess the advantages stated. You will probably be interested in a statement of the safe-guards which we endeavor to place around this in Jamestown. We do not claim that this is the ideal or that it does not have its faults but we believe that it contains the elements of growth and adaptibility which will ultimately result in solving some of the problems under discussion. First, in conformity with the rules of the state high school board each student must complete four years of English, one-half year of American History and one-half year of Civics. Unless excused by the Principal or Superintendent each student should take at least two years of either Latin or German, one year of Elementary Algebra, one year of History other than American and two years of science. All choices of subjects must be approved in writing by the pupils, the parents and the principal of the high school. No students will be allowed to take subjects for which they are not sufficiently advanced. In foreign languages the student must take at least two years of the same language. Unless decided unfitness of the student for a subject is discovered a student must repeat a study in which he fails until creditable work is done or his unfitness for the subject becomes decidedly apparent. All students fitting for college are strongly advised to select their colleges and elect subjects in accordance with the entrance requirements of the college chosen. All subjects are recited five times a week and are made of as nearly equal value and difficulty as possible. No classes are ordinarily formed for a smaller number of students than five.

When elections made in accordance with the above rules result in less than five students for the class the subject is not taught. We have here, then, an automatic method whereby the interest of the pupil, the experience of the teachers, the plans and knowledge of the parents all enter in determining which subjects should be dropped and which should be continued. This plan with slight modifications has been in operation over 10 years. I recall a few cases in which students desiring to enter some particular college chosen after their graduation have found that they should have modified their elections in order to meet the entrance requirements. Other than that I know of no serious objections to the plan and under any prescribed set of subjects the probability of such misfits would have been just as great or greater. Many times the attempted pursuit of a subject discloses to both the student and teachers that the student is not qualified to study that subject to advantage. This we find is true not of any one subject or set of subjects, but each subject has its own quota of pupils who cannot master it successfully. Some of these students are advised to change subjects during the school year; others are required to complete the subject. The fact that many such misfits are found argues to me the necessity of flexibility and indicates that we are adapting our courses to the needs of individuals and are further helping each student to find himself. One practical benefit of the system has been our ability to retain students who otherwise would have been discouraged and have stopped their courses. This has been

notably true of the boys. We have always enrolled a large proportion of boys. Our graduating class of last year consisted of fifteen boys and thirteen girls. The average percentage of boys enrolled in first class high schools as shown in the last high school inspectors report was 42 per cent and girls 58 per cent. Jamestown is slightly above this having 45 per cent boys and 55 per cent girls.

One element of the elective system should always be the advice and wishes of the parents. They know the necessities of the students as respects self-support. They know the probable plans regarding further school education. They are, however, guided very much by the advice of the teachers and more by the prevailing reputation which the subjects have as respects their value in the line of activities which the student will undertake. The teacher's advice frequently determines the reputation of the subject and hence the parents' attitude. Our attitude toward most of our subjects is one of personal prejudice without any actual reliable basis in fact. We know how the subjects affect the students in school. As teachers we can intelligently advise students who expect to follow teaching as their profession. Our advice to the students who expect to enter other fields of life is necessarily second hand and far too often purely guess work. I believe it would be a feasible plan for each high school to undertake to maintain a census or directory of its alumni securing information specially with the idea of determining which subjects in the pupil's course have later proved of the greatest value. By this I mean not only subjects of money value but all subjects which proved themselves worth the effort in enjoyment, social accomplishment as an introduction to other fields as a stimulus to action and ambition or as disciplinary drill. Let this census be an effort to find out from the pupils' later experience what in their courses actually proved worth while. Such data would not be of much utility for a number of years but properly collected its cumulative value would be great. We endeavor to approximate this by the advice of the parents who looking back over their own school life can possibly advise their children as to the subjects which will most probably be of value to them. The difficulty here lies in the fact that many of the parents are without school education or had school education of such an entirely different nature from what is offered at present as to be almost totally incompetent to advise.

Let me suggest as my solution of this perplexing problem of high school courses a properly safe-guarded elective system which will automatically discard the subjects of less value and demand those of greater value. Second, a scientific careful census of the graduates of our schools with the view to ascertaining the subjects which their later experience have proved were worth while.

I promised before the close of this paper to give my personal views regarding the subjects at present offered by our high schools. I believe that the subject of Latin as at present conducted could be dropped from all our high schools and inside of five years its absence would never be noticed. I do not mean by this that Latin is of no value or that it's not worth the time and effort of many students, but I believe that other subjects so far surpass it in both practical and cultural values and can secure

the same results in so much better way that its absence would not be felt as soon as we became used to the change. Greek, tho included in the list in our high school manual has practically been dropped and without seriously impairing the efficiency of our schools. Much of the work in modern languages is undoubtedly of such nature or the student is so poorly equipped for it that its value to those pupils is decidedly questionable.

One-half the elementary and plane geometry students are making a bad investment of their time and energy. Except for students expecting to pursue higher mathematics, algebra and geometry are of no practical value, and the same mental training in methods, exactness, and analysis of problems can be secured in more useful subjects. Solid geometry and trigonometry together with higher algebra have still less claim to the student's time and energy.

As subjects of the highest and most unquestionable general value I would present English, including training in expression, civics, history, and economics. The subjects of drawing, science, commercial subjects and manual training are of unquestioned value but not of such general value as those just mentioned.

As subjects which should be added to our courses tho already having a place on our state high school list but which are as yet poorly represented in actual conditions I wish to emphasize the claims of drawing, both mechanical and free hand. The country school normal subjects, agricultural manual training, and domestic science.

This latter subject demands special attention in the light of the principles which I endeavored to lay down at the beginning of this discussion. If our schools should train for social efficiency there, then, is no possibility of debate regarding the introduction of this subject into our secondary schools. The subjects of sewing, cooking, home decoration, household accounts, and economics, home, and village sanitation, elementary nursing and allied branches are ones which possess inestimable practical value and great cultural value as do all our modern sciences. With the boys the choice of subjects to be placed in our curricula is always uncertain, owing to the large variety of vocations opened to the boys. If three-fourths of our boys should regularly enter the medical profession we would have long ago suited our schools to their needs, yet since time began 90 per cent of our girls have become home makers and the same will not change till time shall end. Still, with this fact in view, we are only recently beginning to make feeble efforts to secure the introduction of these subjects. These subjects are now organized, textbooks and instructors are ready and the subjects can be taught. We will be culpably negligent and show a total lack of pedagogical sense as well as common sense if we do not immediately bend our efforts toward the introduction of these subjects. A good thorough course in these subjects need not occupy more than one-fourth of the student's time, leaving the remaining three-fourths for English and other important subjects.

Our high school manual lists review courses in the common branches with a particular view to the needs of prospective teachers. A very valuable and effective modification of this plan might be to offer short period classes

in the common grade subjects and have such courses continue thruout several years of the high school course, for example, this might be called a drill course in common subjects and might occupy say a thirty minute period each day and be given up during the year not to any one of the grade subjects but to practically all of them, especially the reading, writing, spelling and arithmetical drill. Such courses might not be expected to require much outside preparation on the part of the students and their aim would be to revive and re-enforce the grade courses. I believe such a course extending thru the first and second years of high school would be a good connecting link between an elementary and secondary school and would help to secure more proficiency in these common branches among our high school graduates.

In conclusion, let us offer two general methods for determining the relative value of the constants and electives in our high school courses. First, a system of well regulated electives which will automatically select the more desirable subjects and reject those of less value. Second, a reasonable effort to follow our graduates and determine from their later experiences in whatever walk of life they may choose what subjects in their school education have proven to them best worth the time and effort expended in their pursuit. Understanding that it is the aim of public education not to train alone for material productiveness nor yet alone for a life of ease and uselessness but to develop socially efficient individuals capable of maintaining themselves, not interfering with the rights of others and withal exercising an altruistic public spirit based upon a sympathetic community interest and knowledge of one's fellows.

WHAT IS THE FUNCTION OF THE HIGH SCHOOL IN THE PREPARATION OF TEACHERS FOR THE COMMON SCHOOL.

C. E. ELLITHORPE, WILLISTON.

One of the most important functions of the high school is the training of teachers for the common school. Whether this training be the school work which has enabled her to pass a county teachers' examination before she has completed her high school course, whether it be regular work leading her up to graduation from the high school which has incidentally enabled her to secure a teachers' certificate, or whether this high school course be the foundation for a normal school education, the high school course and training has been a very large factor in the training of the rural school teacher.

The secondary schools of our state are in fact preparing more teachers for the rural schools than all other schools of learning of the state combined. This was shown very ably by Supt. Hoover at the session of this association in 1902, and with the rapid growth of high schools under the impetus of increased state aid since that time, their usefulness in this important particular has not diminished.

Supt. Godward in his paper on "The Needs of the High Schools of North Dakota," at the session of this association in 1904, stated the same fact when he said, "the high schools prepare more teachers for the rural schools of the state than all other institutions combined, and are either now furnishing or about to furnish the elementary part of the higher education of almost all teachers."

This is a work which the secondary schools cannot get away from even if they wish. Our high school students will teach in the elementary schools whether we give them special preparations for it or not. The secondary schools being the most widely distributed educational institutions immediately in advance of the elementary school, it is an easy, natural step for its students to take up this work. It is a commonly accepted theory that a teacher for any given kind of school should be a graduate of the next higher institution. According to this theory the graduates of our secondary schools should be reasonably well fitted to do this work. When it is remembered, however, that there are not enough teachers secured for the rural schools from among normal students and high school graduates, it is readily seen that it is inevitable that our high school students should drift into the work of teaching elementary rural schools so long as this demand is not met by teachers better qualified.

This is the condition as we actually find it. High schools as a rule have not particularly aimed to prepare the teachers. I believe that it should and will do more of this in the future. In his address before the association last year, State Superintendent Stockwell stated that our high schools of the near future will be greatly in advance of what they have been heretofore and every high school should have a teachers' course. With the introduction of

work giving preparation for certain vocations, such as the work in manual training, domestic science, agriculture, and the commercial subjects, the work of definitely training teachers for rural schools should not be forgotten nor neglected. It seems to me that more of our high schools should have classes in their senior common branches, pedagogy, and other subjects required for county teachers' certificates. With the same teaching force that we now have, if these subjects were given an equal chance with the subjects more commonly found in our high schools and with which our teachers are no doubt more familiar, our high schools would do their part better in supplying this urgent need. This is the superintendent's problem. There are many young people in most of our high schools ready to do their work if they are given the opportunity and I believe superintendents and boards of education should encourage it.

Our rural schools have too long been the practice ground for poorly equipped teachers. I yield to no one in perception of the advantages of the right sort of rural school. The chances for close individual instruction, the surroundings close to nature, free from the distractions of city or village life appeal strongly to one who has passed through the process of evolution from an apprentice in the rural schools to a superintendent of a village or city system. But at this day I do not believe it is necessary that a little brown country school be inflicted with a green, gawky, ignorant boy in order that Williston may have an experienced superintendent twenty years hence.

President McVey says:

"Whether we like it or not, the fact remains that the days of the old apprentice system have gone by. This statement is true not only in the field of mechanical industries, but it is true of commercial pursuits, journalism, medicine, law, and even government. Business interests, municipalities and patients are insisting that they shall not be the victims of experiments. Trained men and women are, as a consequence a necessity."

Why should the rural school be an exception to the general rule and continue to be the victim of experiment? Why should it not advance as rapidly as rural needs demand?

That the training of teachers for the common schools is recognized as a proper function of the high school is shown by the plan of allowing credit for high school work adopted by the state department after careful consideration by this association. At the session of this association in 1904, Supt. C. C. Schmidt read a paper before the county superintendent's section on, "The Advisability of Accepting High School Certificates in Certain Subjects in Lieu of Examination for a Teachers' Certificate," in which he proposed two methods for giving recognition to high school work in granting of teachers' certificates, the first of which was afterwards adopted in the main by the state department. Supt. Schmidt's propositions were:

1st. By having state high school board certificates under certain conditions accepted in place of the regular teachers' examination, and, 2nd, by accepting the marks of local high schools, under certain restrictions.

The general association at the same session followed this up by two resolutions in which the function of the high school was fully recognized.

It was resolved, "That high school credits in subjects required for teach-

ers' certificates be accepted by the state superintendent of public instruction, in lieu of examination in such subjects, for teachers' certificates," and "that in consideration of the facts that the high school is a state institution, open to all pupils of the state, that it prepares a large number of teachers for the elementary schools, and that the money spent in high schools is widely and effectively distributed, we recommend that aid for high schools be made commensurate with the services which they are performing for the state."

In 1905, after the consideration of the matter by the high school council and the county superintendents' section of the N. D. E. A., and by committees in both sections, a joint committee of county superintendents and high school men, in which the county superintendents outnumbered the high school men two to one, met at the call of the state superintendent and formulated the following plan which was ratified by the county superintendent section at the session of 1905, and has been followed since by the department of public instruction. Quoting from regulations issued by the department, "State high school board certificates in the following subjects: Senior arithmetic, senior geography, physiology and hygiene, theory of practice, elementary algebra, plane geometry, civics, physiology, physics and psychology will be accepted in lieu of examination for county certificates on the following conditions: The applicants must have been at least sixteen years old when taking the examination. No standing less than 80 per cent will be accepted in lieu of examination for county certificates. The FINAL standings must be presented within three years of the date of the examination. Standings obtained on examinations prescribed by the local high school authorities will not be accepted. All standings must be presented to the county superintendent at the time of a regular county examination."

But after our high schools have done all they can under present conditions to meet the demand for better teachers for elementary rural schools, there still remains much in my opinion that should be done before they perform fully their proper function. Under present conditions the incentives for the high school student and the high school graduate to go into other lines of work are stronger than for teaching the rural schools. The business world and the trades are urgent in their demands and as a rule place fewer obstacles in the path of the high school student.

It would be well for rural schools if more of our keenest and best secondary school students and particularly more of our bright young men could be induced to take up this work and I believe this can be done without in the least lowering the standard of qualification of teachers. Let our secondary schools give the preparation and then make it easier for these to get into this work. The present regulations for securing certificates are inadequate for the present needs. The plan providing for the acceptance of local high school credits, outlined by Supt. Schmidt before the county superintendents' section in 1904, but rejected by them, should again be taken under consideration. At the time this plan was rejected the country was not so keenly alive to the needs of the common schools and our secondary schools not so well prepared for this work as at present. Supt. Schmidt's plan was good, it was well stated, and well enforced by reasons,

but he was then, as he has been on some other occasions, simply in advance of the times.

The plan is as follows: "In case the applicant for a teachers' certificate is a graduate of a state high school of the first class, the marks of that school may be accepted for such of the subjects named in the preceding clause as he or she pursued in that school, provided:

First, that the minimum rating thus accepted shall be 80 per cent.

Second, that the city superintendent having supervision over such high school shall recommend that the credits be thus accepted.

Third, that no credits shall be accepted later than sixteen months after the date of the applicant's high school diploma, unless the county superintendents certify that he or she has taught with success since that date.

Fourth, that the state superintendent may decline to accept any or all such credits for any reason he deems sufficient."

The following is a brief abstract of Superintendent Schmidt's argument:

High school of the first class are not required to take examinations except in one subject a year.

Good teachers often have poor certificates and poor teachers often have good certificates.

A diploma from a first class high school of the state, if the holder be a good student, averaging at least 80 per cent, is worth more than the best second grade certificate.

Graduates of first class high schools of this state now enter the freshman class of the best colleges and universities of the northwest without examinations—simply on the scholarship marks given by their schools. But they cannot enter the teaching profession.

Colleges do not admit students to the freshman class on a teacher's certificate.

The training best adapted to promote mental growth is not always best adapted to fit for passing examinations.

In many of the best schools of the country they have ceased to make a fetish of the examination.

Graduates of first class high schools go to a normal school for one year and then receive a diploma, without further examination, eventually become a professional state certificate, valid for life. If their high school work is good enough for a first grade certificate after a year at the normal school, why is it not good enough for even a second grade certificate without that year?

Summer school standings are accepted toward certificates and summer school work is no comparison as good as that done in our first class high schools.

Hardly a session of the state association has been held of late years without this plan or the general idea embodied being presented by some one anxious to improve the conditions of the common schools.

Superintendent George F. Forester in discussing this subject in 1908 said:

The people of the rural communities are not getting proportionate return educationally, for the school taxes they have to pay. Do not state high

schools, drawing state money, owe it to the rural communities that they prepare teachers for the rural schools?

According to the bureau of education, but little over five per cent of our teachers, the country over, are normal school graduates, and less than 25 per cent have had as much training as that offered by a six weeks' summer school.

Many enter the teaching vocation directly from the high school with no training, or but little training, to fit them to teach.

The normal schools cannot do all the work.

The high schools of the state have it in their power to improve the efficiency of the teaching throughout the state, and that, too, in a field not to be reached by the normal schools or the normal departments in the state schools.

Superintendent Linn in a paper read before the Northwestern Teachers' Association at Minot this spring made a strong plea for this work. He showed that it is demanded by high school students, the rural school needs and by the self interest of high schools themselves, that a proper return to the state at large for state aid to high schools requires it, and that, quoting Presidents McFarland and Hillier, the normal schools are favorable to the help that high schools can give in improving the rural schools.

President Kern stated last year before the association, "In no state in the union are the normal schools supplying the demand for rural school teachers. They do not even attempt to supply the demand. Minnesota is just now attempting to solve the problem by organizing normal training classes in first class high schools."

Pres. Smith in his address before the general association, has outlined the work done in Minnesota and urged us in the most positive manner to take it up.

Superintendent Stockwell Wednesday gave this work his endorsement in unmistakeable terms.

I believe this is the proper time to get something done in this matter. It seems to me the time is ripe for the acceptance, under certain restrictions, which might well be left to the state department, of local marks of first grade high schools toward county teachers' certificates.

If this complete recognition of local marks cannot be secured at this time, the very least that we should expect is that graduates of our high schools who have completed a teachers course acceptable to the state department be granted some sort of teachers certificate, qualifying them for teaching in the common schools.

This has been urged repeatedly before this council and is recommended by the committee of seven.

I quote the following from the paper of Superintendent N. C. MacDonald on "Modifications in Our High School and Grade School Systems," read before this association in 1906:

"In order that our high schools may enlarge their field of usefulness, high school diplomas should be made the equivalent of a county first grade certificate, that is, when certain conditions are met and complied with. These conditions in general should be that the holder of the diploma should not

be less than 17 or 18 years of age, and in addition should have completed the senior review subjects with a course in pedagogy. In such event the state could well afford to give to the schools so doing a special bonus of \$700 or \$800, as is done in Minnesota. Also, the county superintendents and normal school faculties could well afford to give such a scheme their hearty support. Accept high school diplomas as teachers' certificates where one high school graduate enters the teaching profession now, two would enter then, and besides it would practically double our high school enrollments."

The plans suggested in the report of the committee of seven concerning the preparation of teachers for the elementary schools is as follows: "An arrangement at least temporary, should be made by which elementary pedagogy, together with observation and practice teaching in the lower grades, should be offered as electives in our high schools. The arrangement should permit the issuance of high school graduates who do this, second grade certificates entitling them to teach in rural schools for a limited time. This would tend to increase rather than decrease attendance at the normal school, and it would certainly increase both the number and quality of rural school teachers. The second grade certificate good for only a limited time should be the highest form of license given under this arrangement." Quoting further concerning high schools, "These schools should broaden their curriculum so as to include a fair proportion of the industrial subjects and a limited amount of elementary pedagogical work. This would be a good thing not only for high school students preparing to teach, but for some teachers already in service who might drop teaching for a short time occasionally to advance themselves professionally in the high schools."

I hope this plan will be put into operation.

In this paper I have brought you no new thoughts, but I have tried to bring before you concisely the best thought on this subject, and I hope you will find some way to carry out the suggestions made by these men who have given it careful consideration.

I would suggest that this section pass resolutions favoring the recognition by the department of public instruction of local high school marks in lieu of the teacher's examination and favoring legislation making diplomas of graduates of approved teachers' courses of our high school certificates for common school teaching, as recommended by the committee of seven;

That we try to have these resolutions given a place among the general resolutions of this association; and that a committee of high school men, with the assistance of the county superintendents if possible, and the state superintendent take the necessary steps to secure this legislation.

ABUSE OF INTER HIGH SCHOOL ATHLETICS AND THE REMEDY

R. B. MURPHY, TOWER CITY.

Mr. Chairman, Ladies and Fellow Workers:

The title of my discussion this morning is the Abuse of Inter H. S. Athletics and the Remedy. This topic was assigned me by our worthy chairman, possibly because he knew I can be easily excited to say something on the subject of athletics in which I have always been deeply interested. I wish to say at the outset that any conclusions I may reach in this discussion are not aimed at any school in particular, but I believe that some of them apply to *all* of us with more or less force.

It would be useless for us to deny that we have abuses in the management of our Inter H. S. Athletics. We could scarcely expect to secure the *uses* of any public school activity without developing at least some of the *abuses*. The law of compensation holds good here as elsewhere. What then are the abuses that militate against the benefits that should result from our Inter H. S. Contests? I shall endeavor to set down some of them as they have occurred to me in my experience with these contests during the past five years.

In the first place I believe and believe strongly that we have *too many* inter-scholastic contests. The primary purpose of these contests, to my mind, is the creation of a more general interest in proper physical development in our schools, and to furnish an incentive to stir the enthusiasm that might lag from the routine of every day drill. Considered as a tonic these contests with outside institutions are beneficial, but I am afraid we have gotten beyond the tonic stage. We are no longer satisfied with occasional contests. I find from experience with my own teams that they count that week lost which does not provide for a game with some neighboring school team. When I rebuked them recently for their ambition in this line they said, "Well, all the other H. S. teams schedule weekly games." And so we follow the multitude to do evil! We are aping the college and university plan in this as in too many other matters. If we say that the excitement aroused in the minds of immature H. S. students by these weekly contests does not affect adversely the quality of their class work, we only deceive ourselves. The laws of physical action and reaction give us the lie. We need to apply the brakes here.

Growing out of this abuse just mentioned is the excessive demand made upon the time of the faculty manager or supervisor to arrange the extensive schedule and attend to the details of these contests. What with the necessary correspondence, certified lists before and after, and the completion of verbose contracts demanded in many cases, I for one have come to feel that we are spending more time and energy here than we can afford. Inter H. S. athletics constitute a means and not an end.

Apart from the time element in connection with our official League reports, I believe that they tend to intensify the championship craze, the supreme curse of our Inter H. S. Athletics. In this connection I may say

that I can speak "as one having authority and not as the Scribes," for I have been thru a few championship struggles and so have had an opportunity to judge of their baneful effects.

Another abuse I have noticed in connection with our Inter H. S. athletics is the lack of discipline (lawlessness might not be too strong a word) shown by many teams when away from home. Due allowance should no doubt be made for the thoughtlessness of youth in this matter, but I always suspect that the school control is not just what it ought to be when I see boys insulting officials in the presence of their coaches, making a rough house at hotels, and behaving generally as if 'twere only noble to be tough. It is a consoling thought that such actions are the exception and not the rule among our High School teams.

As a remedy for some of these abuses I would suggest that our H. S. league adopt an amendment to the constitution making three Inter Scholastic games of foot ball the maximum, and that in basket ball an interval of at least two weeks should elapse between these contests. I would further recommend that the official reports of all contests be not transmitted to the Secretary of the League but that they be buried on the field of battle along with all ill feelings that may arise between over ambitious managers and coaches.

I am not sure either that these certified lists of eligibility exchanged before contests do any particular good, altho they may possibly be used in some cases to help inefficient teachers goad an occasional student. I somehow have a feeling that when we have to threaten a student that he must do satisfactory school work or he cannot make the foot ball or base ball team we are making a rather sorry confession of the quality of our instruction.

There is something wrong when a school has to resort to this hold-up method of securing interest in class work.

Then again I have noticed that the stars on our teams are generally able to remove any conditions they may have at least an hour or two before a big contest. Yes; I have known of H. S. students in N. Dak. who were declared by their faculty ineligible on Thursday and gain a clear bill of health on Friday. Isn't holding the club of authority over innocent heads with a vengeance? Personally I would just as soon accept a superintendent's verbal guarantee that his team is eligible to represent his school as I would his written statement. If we would think a moment I believe we would see that no superintendent can afford for the sake of his standing at home to be dishonest in the matter of eligibility. We need a little more mutual confidence.

These are some of the thoughts that have occurred to me, in thinking this subject. I have not exhausted the list of abuses but have simply called attention to what seem to me to be a few very vital defects in our conduct of Inter H. S. Athletics. If these ideas coincide with any you have on the subject I shall feel gratified. If they lead to discussion and the bringing out of other ideas on this important subject, I shall feel that I have contributed a little something to the success of this meeting.

**THE DEPARTMENT OF .
ELEMENTARY EDUCATION**

COMMON STANDARDS OF CULTURE IN HIGH SCHOOLS.

Before entering upon a discussion of what common standards of culture should be maintained in the high schools of the state, it may be well to indicate what we intend to include within the scope of this variously used term, "culture."

We prefer to include in the meaning of culture all the powers, qualities, and tendencies which best fit the individual and the social organism to persist and which will render the greatest satisfaction to the individual.

Just what qualities, powers and tendencies will best do this can be determined only by a consideration of the capabilities of the individual and the needs of the social organism. As neither of these is determinable by accurate methods of computation the results must always be approximations, but the degree of accuracy in these approximations of the capabilities of the individual and the needs of society will determine the value of any attempt to educate the individual.

From the very nature of the social organism, composed of individual personal units whose powers, qualities, and tendencies are at the same time the constituents of the organism and in large measure determined by the organism, there follows two classes of culture—that culture which all individuals should have, alike, and that which they should have to perform their specific, individual functions in society. The former of these may well be called common culture and the latter specific. The common culture arises from the demands of society for uniformity in its individuals; for it must be kept firmly in mind that not only *differentiation* but *standardisation* is employed in the evolution of the social organism. Nature aims sometimes at types, utterly ruthless and unmerciful in the destruction of undesirable individual forms, to attain the perfect type. *Education on the other hand aims to ameliorate this loss of the individual, to save every scrap of the individual, and still attain the desirable standard types as well as the desirable differentiations in the individual powers.*

To accomplish this two-fold task, education must take into consideration the already existing variations in the child and the ultimate needs of society which the individual will have to satisfy, if he is to be a success. It is hopeful that educators are at present studying the variations of the child as they have never done before and are at the same time taking into account the tremendous complexity of the social organism with which the individual will have to be unified.

There is danger in some quarters that the study of the individual variations may obscure the real problem—the adaptations of these variations to the social need and hence to the individual happiness, but this will probably correct itself and the enthusiasts will learn not to make the FIFTY—Pro N D E A

variations of the individual the end of education but the means. When all the essential variations have been discovered they will not be nursed and

petted as worth while in themselves but some of them will be ruthlessly weeded out, some will be standardized to meet the needs of the social organism and others will be specialized and perfected.

What will determine which of these courses shall be pursued with the individual variations? The needs of society. Since the test for the validity of specialization is the ultimate demands of society it is obvious that not only is specialization excluded from moral, religious and civic culture, but from physical culture, except with reference to sex, and from the essentials of esthetic culture. In all of this field of culture the standards are common. This, of course, does not mean that individual variations are to be ignored in these fields but on the contrary that they be used and developed toward the desirable types. Nor does it mean that the same degree of culture is to be demanded of all, but only that each approximate the perfect types as far as possible. *

But, as we have pointed out, all education does not aim at standardization. It must be kept clearly in mind that the social organism evolves not only by standardization of types but by variation of individuals to perform special functions.

In education, these special variations will lie largely in the vocational and esthetic fields. This field is almost unlimited in its possibilities of desirable variation. The schools will do well to attend to these at the same time not neglecting the work of common culture. Just what specific training in the direction of industry and art each school will give will be determined by the social and often the local needs. Within the range of instruction in any school the selection of specific line of industrial or artistic culture for any pupil will be determined by his possibilities and capabilities.

But there is one phase of this question of common and specific culture which I wish to emphasize and that is the equal opportunity of all classes of society to avail themselves of all or any of either the common or the specific culture afforded by the public school. Industrial culture must be given a place of equal honor with any other culture. The laboring man's son must have the same opportunity to acquire polish and elegance and beneficent arts as the rich man's son and the rich man's son must have the same opportunity to learn the useful industries as the poor man's son.

The American commonwealth will never be satisfied with its system of education until it has made the word culture include every useful and desirable industry and art; and until every boy and girl in the United States shall have the opportunity to receive complete education both in the refined arts of living and in the industrial arts of making a living.

MINUTES

ELEMENTARY SECTION.

Presbyterian Church, Bismarck, N. D., Oct. 19, 1910.

In the absence of Pres. C. C. Gray meeting was called to order by Vice Pres. B. A. Wallace of the Valley City Normal. Miss Eula Miller, the secretary, being absent, Miss Gjellstad was elected temporary secretary.

Miss Mamie Sorenson was then duly elected as our representative on the nominating committee.

The program was then rendered.

Motion made and carried that we adjourn.

ANNE O. GJELLSTAD,
Sec. Pro. Tem.

ELEMENTARY SECTION.

Presbyterian Church, Bismarck, N. D., Oct. 21, 1910.

The meeting being called to order by A. H. Gleason of Underwood and the program being rendered the body proceeded to the election of officers.

The following officers were elected:

President—B. A. Wallace, Valley City.

Vice President—A. H. Gleason, Underwood.

Secretary—Miss Beatrice Johnston, Grand Forks.

Member of Executive Committee—Prof. B. A. Wallace.

Motion made and carried that we adjourn.

ANNE O. GJELLSTAD,
Sec. Pro. Tem.

RETARDATION IN THE GRADES.

DISCUSSION BY E. R. EDWARDS, MINTO.

There are doubtless many causes of retardation of pupils in the grades and these causes, of course, vary somewhat in different localities, and in different schools, but in general we find the same causes affecting grade work the country over.

Physical defects are almost sure to account for a large percentage of the backwardness found in the elementary schools. The sad part of it is that many, if not nearly all, of such defects can be remedied by proper treatment at the proper time. Medical inspection with early subsequent treatment by competent physicians and nurses would doubtless remove a large part of the retardation due to eyes that need spectacles and treatment, adenoids, poor hearing, etc. Lack of proper and sufficient food is another great cause of backwardness among children. There cannot be good mind activity in an underfed body for any length of time. Ill-ventilated school-buildings and homes devoid of fresh air must be charged with responsibility for some of the retardation.

Another general cause is our compulsory attendance law. In North Dakota, as in very many states, there is a six year law, and an eight year course for the elementary school. This means either that children enter school two years later than is contemplated by the course of study or that they may be taken out by parents who so desire by the time they reach the 6th grade, after which time their school attendance is problematical. Poor enforcement of the attendance laws is also somewhat responsible.

We may find a partial answer to our question in our inelastic courses which are built upon the theory that all minds are much alike and capable of equal development along the same lines by the same means and methods. So long as we attempt to educate children in herds we cannot expect any thing very different from our present dilemma. We have raised an arbitrary standard for promotion or advancement in our elementary school work. Pupils are required to complete certain stipulated amounts of work in stated periods of time. All cannot do it. Those who cannot are generally required to put in another year or half year on the same work, when they probably are proficient in 80 per cent of it. Thus they lose interest, get behind some of the brighter minds whom we teachers are apt to praise and hold up as examples. Going over work a second time becomes discouraging and many boys and girls refuse to even do their best a second time. We need a more elastic system whereby we can do justice to both the bright pupil and the dull pupil and some arrangement whereby we can promote by subjects rather than by entire grades. More attention to industrial and utilitarian subjects in the grades should be a help. These subjects are better suited to the grammar grades than are subjects which require the reasoning power and which we now require of pupils who cannot master them with sufficient ease to stimulate their interest and make them enjoy studying them.

As long as we persist in grouping pupils in grades which do not mean groups of pupils of equal ability and continue to keep both the brightest and the apparently duller in the same classes for long periods of time, we must accept responsibility for retardation. Promotion would be better if based upon power than now when based upon accomplishments only, which may not always mean the same thing. We need more of the concrete and less of the abstract in our elementary courses; more common sense and less system.

THE PERSONAL EQUATION IN TEACHING.

N. C. MACDONALD, MANDAN.

In this paper I shall discuss the subject, "The Personal Equation in Teaching," under the following heads: (1) A general description or definition of the term, "the personal equation in teaching;" (2) a description of some of the forces or causes that bring that condition into existence; (3) a description of some of the wholesome effects that obtain where that condition prevails.

In the first place, let us clearly understand that when we are talking of "the personal equation in teaching," we have in mind personality in teaching. In other words, the subject of my paper might be called, personality in relation to the teaching service. Personality in this sense, or in any other sense for that matter, does not mean eccentricity in manner, or singularity in conduct. It is not accurate and sound scholarship, neither is it professional knowledge and enthusiasm. Then what is it? First of all, it implies and means the presence, the existence, of a man or woman—flesh and blood in human form. Magnificent buildings with splendidly equipped libraries, and laboratories cannot take the place of the teacher with a message—a personality. Personality rises above all such things, not only in its causes, but in its effects as well. Personality in teaching, that is, "the personal equation in teaching," means kindness, sympathy, thoughtfulness, cheerfulness, charity, loyalty, devotion, industry, efficiency in all school relations. It means more, too. Briefly, personality is loyalty to duty; it is unselfish devotion to duty. It is character in its highest and best sense. In a word, it is *unselfishness*.

It is given to a few to possess it in a large degree. In our political life we have seen it so possessed by Washington and Lincoln, and we see it today in the greatest living American. In the field of teaching we have seen it in its highest form in the life and work of the First Great Teacher. In a less though important degree, it is seen in the lives of the great teachers who have fought and died for the truth on down thru the blood stained centuries. In our country's history it has been seen to a marked degree in the lives of Horace Mann, David Page, and Mark Hopkins, and many other valiant soldiers of the truth. Hopkins had it in that high degree that it was said of him by a distinguished scholar and statesman, that a university consisted of Mark Hopkins on one end of a log, and a student on the other. Did time and convention permit, personality in relation to teaching could be further described by taking examples from our own day in our own state. Many cities, towns, and villages, many rural communities in our commonwealth have their teachers whose unselfish devotion to duty is a blessing and an inspiration to those with whom and for whom they work. Underpaid, unhonored, and unsung, grandly and nobly do they bring their choicest offerings to the shrine of unselfish devotion to the duty of the hour.

This tenth sense, personality, that is, "the personal equation in teaching," is the product of environment in some and heredity in others. There

are those that possess personal power and magnetism of that quantity and quality that only the gift of heredity can account for it. Such are blessed and equipped for the teaching service beyond the common measure of man; and as much has been given, surely much must be expected from them. But, it is not this class that we wish to consider at this time.

It is rather the great majority of teachers who must secure or acquire their personal equation in teaching from their environment. This environment which is to condition or determine in a large measure the teacher's personality, is made up of many diverse elements. The more important ones are good health, friends, companions, buildings, and equipment, sound scholarship, professional knowledge, and enthusiasm. There must be good health and healthful surroundings. Napoleon once said that an army marched and fought on its stomach. Roosevelt put the same truth in another way, when he said that a man is no better than his nerve. The deduction from either statement applies directly and forcibly to all teachers in relation to their personal power. The sparkling eye, the elastic step, the well controlled voice, are all important factors that go to make up a strong personality. By themselves alone they do much toward making better boys and girls, but when used and directed by a well trained teacher, they can and will do much more in the same field. Good looks that come from health and proper thinking, not from the drugstore and millinery shop, must always be a valuable asset in any teacher's equipment. The possession of good health means sleep, and plenty of it, wholesome food, and plenty of it, physical exercise and plenty of it, such as tennis, ball playing, hunting, fishing, walking, rowing, etc. The pages of history are replete with the success of those who made history by guarding and protecting their health.

It is no idle guess that the man or woman who has some hobby that means exercise with friends in God's out-of-doors will be much the better teacher than the one who carefully avoids all such diversions and forms of recreation. Not long ago a robust, well meaning mother stepped into a superintendent's office to ask that her daughter's name be placed on the list of the teaching force for the coming year. The first, last and most important qualification that this fond, but deluded mother could give in behalf of her daughter was, that the daughter had tried bookkeeping, house-work, and sewing, but had found them all too hard on her health, that she had been, and was now in poor health, but as she was looking for a rest, she would like to have her in the school. Too often this is the case in some schools. It is to be hoped that the school children can be saved from the blight of the unhealthy school man or woman. My word of counsel in closing this topic would be: Guard your health as you would one of your dearest possessions, conserve, preserve and reserve, it for that hour and that day when you must have it in abundance; and that is every teaching hour. It is our solemn and sacred duty to protect it always. Do your work nobly, and wisely, but preserve your health. And why? Good health, in a higher degree, enables you to work diligently, to judge wisely, to commend honestly, to condemn justly. Further, in a higher degree, it

will enable you to impress your individuality upon those under your charge to the end that they will be the better for it.

Then true friends and companions that all teachers should strive to have and to hold, will develop and will give opportunity for the growth of personality. Many examples are to be found on every hand. Here is a man who is able to do big things for his school because he is an active member in a social club where he meets the men of affairs in his city. Then here is another man who takes an active part and a lively interest in the high school athletics; and by so doing, he adds greatly to his efficiency as a city superintendent. And again here is a woman whose sympathy and interest are so great that she is an older sister-friend to all the boys and girls; thus her personality is the greater and counts for more than it could otherwise. Many other instances could be cited, but time will not permit. True friends and companions without and within the school will determine largely the extent and content of one's personality. They will furnish the weapons, offensive and defensive, always needed by the teacher who is a doer of things. The friends, however, must be those honorably won and held, and never by capitulation.

Then last but not least, sound scholarship and professional knowledge and enthusiasm in connection with, and as a part of a life's program to always plan wisely, and justly, to execute surely and fearlessly each and every duty of the hour, are after all the most important factors in producing a worthy personality. Health, true friends and companions, splendidly equipped buildings are no unimportant factors in this relation, but they can never approach the former in dignity and scope and worthy results. Just as surely as physical skill appeals to the boys and girls, and just as surely as such exhibitions under proper conditions give opportunity to develop personality and impress it upon the pupils, so it is true, but in a larger degree, that exhibitions of mental skill, professional knowledge and enthusiasm carried into the schoolroom give form and substance to that personality which will modify for the good the lives of the boys and girls.

This now brings me to the discussion of the last topic, viz., the wholesome effects of a worthy and strong personality in the teaching field. They are many and important. A few of them can only be named in these closing words. A strong and worthy personality will enrich and enoble the lives of boys and girls. It will hold in school many boys and girls in many schools when all else will fail to do so. Here is a high school in a small town with unfavorable conditions for doing school work that stood in the front rank in the matter of attendance, number on the graduation list, including both boys and girls, the number going on to do higher work and doing it well. It was due largely to the personality of a healthy, well trained, devoted, unselfish woman who entered the lives of those boys and girls in that way to inspire them to think and to do better things in a better way than they have ever done before. Then here is another high school built up in the shadow of a well endowed state institution much of whose work was in the same line. The large enrollment, the splendid work done, the fine spirit shown in this school were in no small measure due to the personality of a well equipped man. Here and there scores of

similar examples can be given and invariably the principal cause is the influence or effect of strong personality in action. Then here and there individual examples can be given in which we have this boy and that girl rising from the depths of poverty and obscurity to positions of honor and responsibility, because sometime, somewhere, some teacher touched his or her life with that magician's wand—a *worthy personality*.

To conclude: Give us money, and plenty of it, that we may have more, and better trained teachers with more wholesome surroundings in order that the boys and girls may come in contact with bigger men and women—bigger personalities. Give us more money, and plenty of it, in order that there may be more and better buildings and equipment with more teachers and less pupils per teacher, in order that the boys and girls may come in contact with the best that twentieth century civilization has to offer them—strong, and worthy personalities.

MORAL EDUCATION IN THE PUBLIC SCHOOLS.

C. C. SCHMIDT, UNIVERSITY.

My theme is, moral education in the public schools and its effect upon the future civic life of the pupil.

I shall observe the distinction between moral training and moral instruction. Instruction in morals aims to give the pupil knowledge of the ethical standards of the community, but thru moral training he becomes habituated to conform his conduct to those standards. Moral training is secured by the school discipline which exacts a high standard of conduct, by well organized physical training, and school games, by the good influence of the community life of the school, by the effect of honest work upon the student's attitude toward life. Moral instruction aims definitely at furnishing ideas which, it is hoped, shall help in giving a right direction in conduct. I consider both training and instruction necessary phases of an effective moral education.

Moral education, or the formation of character, has been the first concern of many of the world's greatest teachers in ancient and modern times. Plato and Aristotle urged long ago that the chief thing in education is that the young soul should learn with all its might to love good and to hate evil. But the complex life of modern society makes sound and universal morality all the more imperative. We need, now especially, more direct application of moral principles to life under these complex modern conditions, and, to the civic obligations of the members of a self-governing people.

A full recognition of this need, a few years ago, in England, led to the appointment of an international committee composed of 45 eminent educators and other public men from the United Kingdom and 30 from the United States whose duty it was to make an international investigation into the subject. Their report, entitled "Moral Instruction and Training in the Schools," edited by the chairman, Mr. Michael E. Sadler, is published in two octavo volumes aggregating over nine hundred pages, and constitutes a mine of most authoritative information and conclusions. A committee of our own National Educational Association has lately been prosecuting an inquiry on lines similar to those followed in Europe, and its findings will, no doubt, also prove most valuable.

Assuming, then, that moral education is universally conceded to be of utmost importance, I shall not spend precious time in repeating the arguments for it, but shall hasten to consider how it may best be given.

Let us not, however, exaggerate the power of the school. It is the fashion to demand that it shall rectify everything that goes wrong in society. If our girls cannot cook a wholesome meal, the schools must teach domestic science. If the abolition of the apprentice system has made it difficult for boys to learn a trade, the schools must, through manual training, give acquaintance with the materials, tools and processes employed in the industrial arts. And so, when bribery, graft and corruption run

riot, the schools are looked to for a remedy. Now, while we assume our share of the task, it must be emphasized, in passing, that the school is only one of the chief agencies of moral education. The home is easily a more powerful factor in the formation of character, the influence of the state, community or neighborhood upon the life of the child is usually underestimated, and if the church is not a potent influence, so much the worse for the church. With these institutions, however, we are not concerned at this time. Our theme is, moral education in the schools. Let us, therefore, notice that the factors upon which the school depends for moral training are: (1) the personal influence of the teacher, (2) the general effect of school discipline, (3) the effect of the school studies as literature, history, manual training, etc., (4) formal lessons in morality, (5) religious instruction. We shall consider these inversely in the order mentioned.

(1) Religious instruction. Historically the closest relation has always existed between moral and religious education. In the early days of our own country the study of biblical literature and theology was deemed of paramount importance, and the reader, the spelling book, and even the arithmetic, obtained much of their content from the sacred Scriptures. Moral training was considered such a natural and inevitable resultant of religious instruction that as a matter of fact it received little attention. Gradually, however, all formal religious instruction has been eliminated from the public schools and a system of secular education evolved which is here to stay, for it is the logical corollary to the separation of church and state. It is now our duty to make this system the most effective instrument for the training of the young that has ever been devised if it lies within our power to do so. To insist, as some still do, that the religious sanction is indispensable to moral education is an attempt to evade responsibility. That issue should be abandoned to the theorist. The church and the home may still depend upon religious instruction for moral training if they like, but so far as the public school is concerned, we must learn to utilize the other factors for this training that are available, and that in the opinion of many, are more potent than the one we have been obliged to abandon. It is true that in Germany great importance is still attached to religious lessons which are even given on a denominational basis, but we should remember that many competent observers deny its value both from the standpoint of religion and morality. It is certainly so far from satisfactory that the experience of Germany cannot be quoted as a model for us to copy. Of those replying to the inquiries of the American Committee previously mentioned only 13 per cent favor religious exercises in the public schools.

(2) Formal lessons in morals are the next means of moral education that we shall consider. These lessons are devoted to ethical subjects such as kindness, duty, social service, etc., and have for their purpose to enlighten the child's judgment. Such instruction has been most fully systematized in France, where it was established by law in 1882, because the government, when religious instruction in the public schools was abolished, was determined that morality should not be neglected as a result of such abolition. This system of moral and civil instruction at first met violent

opposition on the part of the clerical party, but has won its way and is now firmly established. and is prized by the great majority of the teachers, who believe that it is productive of good results. English investigators are more skeptical, however, and one reports that these lessons "are in danger of producing moral priggishness, or even hypocrisy, as serious as the religious hypocrisy of former days." Another report expresses the opinion that this direct moral instruction is "unable to stand alone or take the place of moral training, but might be useful to supplement the latter by defining, strengthening and controlling the impressions made. With this instruction no child need leave the French primary school in ignorance of the fundamental moral distinctions, but one is not always so sure that he leaves with firmly imbedded moral principles and with any considerable driving power toward good."

In this country the consensus of educational thought is overwhelmingly opposed to formal lessons in morals, only 18 per cent of the replies received by the N. E. A. committee being in favor of such instruction. It is interesting to note, however, that it is a case where the doctors disagree. President C. Stanley Hall, for example, advocates the preparation of "a manual for each grade in the schools somewhat like the French books, for moral and civic instruction;" while George Herbert Palmer, Professor of Philosophy in Harvard University, is sure that all ethical instruction is dangerous to children.

(3) We come now to the indirect or incidental method of instruction in morality, which takes advantage of the purposive moral tendency of certain school studies, conveying moral impressions through use of literature, geography, history, civics, etc. In comparing the ethical value of different studies, 58 per cent. of the correspondents of our N. E. A. committee give first place to a group comprising literature and history, with literature somewhat in the lead, while 20 per cent. consider that the ethical value of different studies varies but slightly. Literature presents moral situations so naturally, vividly and convincingly that the child's conscience is awakened and its action made sure and swift, his moral perception is quickened, sound moral judgment developed. In history examples of virtue abound. The pupil learns of toleration, heroism, philanthropy. He admires public spirit, public honesty, self-sacrifice for the public good. Moral enthusiasm will hardly be generated by lessons in ethics, but the ethical content of literature and history furnishes incitements that permeate, mold and transform the child's very personality. Geography establishes sympathetic relation with peoples far away. It makes the heart beat responsively for all mankind; makes the whole world kin, and supplants hostility with the spirit of fraternity. Hygiene develops the pupil's respect for his body. Art makes its appeal through a beautiful school environment. Music appeals to the emotion and should express sound moral sentiment in high literary form. School games teach co-operation and create a spirit of fair play. Manual training and, indeed, all industrial training, develop the will through motor activity. Bookkeeping demonstrates the meaning of integrity in business transactions. In civic studies the pupil becomes imbued with lofty ideals as to the nature of organized society and his function

therein. In general, all studies have a beneficial influence in so far as they produce habits of industry and perseverance, train the voluntary attention, and develop the power of self-control, the root of all morality.

In connection with this indirect influence of the school studies, we should also emphasize the moral effect of physical training and medical inspection. The moral life of a child must, in a measure, depend upon his physical condition; you cannot separate the two. Moral weakness is very often traceable to physical deficiencies. The moral welfare of the child is also dependent upon the economic conditions under which he lives. The child should be well-fed, clothed, housed and cared for.

Here, too, we must note the importance of vocational training. Train the child for efficiency in an occupation and you equip him for fulfilling his moral obligations. Practical training which makes the boy and girl able to meet the real conditions of life by honest labor, reduces the chances of yielding to temptation. In vocational studies moreover, the pupil is taught something of the ethics of vocations; the proper relations towards superiors, equals and inferiors; something of the interdependence and interaction of all the various vocations upon one another; of the necessity of temperance, self-control, and full efficiency of mind and body.

Much has of late been said of the superiority of the traditional academic studies for character building as against the newer candidates for a place in the curriculum. Some opponents of industrial, agricultural or commercial education seem to think that to lessen the emphasis on mathematics, Latin, etc., and recognize the newer studies would endanger the cause of morality. Of all the superficial notions advanced in opposition to the readjustment of our curriculum to meet the needs of the times, this is certainly the most absurd. The greatest weakness of our curriculum as an instrument of moral training is the poor provision made for training the will. The theory of moral training is that the will shall be trained to act with promptness and certainty upon the behest of judgment and feeling combined. Now, with the traditional academic subjects, no matter how deeply his feelings are stirred, the pupil must retain his seat, keep his nose buried in the book, and let his emotion evaporate. But in manual training, physical training, singing, drawing, bookkeeping, no sooner does he grasp an idea than he proceeds to bring it to fruition. It is easily demonstrated that these subjects stand near the head of the list as effective agencies in the formation of character. The committee often referred to in these pages asked this question: "If you had a free hand, what reforms would you introduce in courses of study, or in educational organization, or otherwise, in order to increase the ethical efficiency of school training? And to this the late Dr. William James, the great Harvard psychologist, replied, "I should increase enormously the amount of manual or 'motor' training relatively to the book work, and not let the latter predominate till the age of 15 or 16."

In this country the most intelligently devised and conducted experiment in moral training is the Ethical Culture School of New York City at whose head is Dr. Felix Adler, author of the well-known book, "The Moral Education of Children." This school comprises about 450 pupils, a Sunday

school of 150, and 150 more in various supplementary classes organized in groups and clubs. It was established and is maintained by the New York Society for Ethical Culture, and has from the first made the formation of character its central and dominating purpose. It has developed to the fullest extent the indirect moral instruction thru the regular studies and its methods in this field are full of suggestion.

(4) The next factor upon which we depend for moral training is the general discipline of the school. Let us realize what a good school accomplishes in moral training while it is engaged upon the regular course of study. The habits of industry, accuracy, punctuality, obedience, honesty, politeness, self-restraint and co-operation; the love of truth and uncompromising attitude toward error, the recognition of rightful authority,—all these virtues and many more which are inculcated in every good school are fundamental in the moral and civic life of the community in its domestic, industrial, commercial, political and social relations. This is of incomparable value because it is real training. The pupil's head is not filled with platitudes *about* these virtues, that he may repeat at examinations, but he is trained through long years in the *practice* of these virtues. A well disciplined school, in which formal lessons in morals may perhaps be unknown, would still give moral training of the utmost effectiveness upon the future civic life of the student; while the school in which the spirit of industry, order, obedience and respect for teacher and parent are absent, may have the most comprehensive system of moral instruction that philosophers can devise and its efforts would still make the angels weep.

(5) Personality of the teacher. We have reserved the personal influence of the teacher for the last. Forty-seven per cent of the replies to the questionnaire so often quoted considered that the personality of the teacher, and the tone of the school were together so important in providing moral instruction and training that, at most, there would only be required in addition some indirect method of moral instruction. In the minds of all, the teacher's personality is the most potent force in moral education. Therefore what he is, is of utmost consequence. Fortunately the teaching body of our country represent the highest ideals of morality to be found in the community. These they bring into the school room, and directly and indirectly impress them upon the young, in whom they remain a permanent force in life. The secret of this personal influence is difficult to analyze, but it may be traced to some kindling ray of sympathy and insight, which enables the teacher to gain the affection and confidence of the child. Then we may mention the force of suggestion by example, the intrinsic moral force of the ideals which the teacher exemplifies, and to the wise method of approach which he employs.

Conclusions.

Let me summarize my conclusions. 1. The school must not be blamed for all shortcomings in the moral life of the nation. Its responsibility is shared by other agencies, particularly the home, the church and the community. The school is probably doing its part better than these other agencies are doing theirs, but this fact does not relieve it from the obligation to accomplish still more.

2. Formal religious instruction as a basis of moral education in our public schools is out of the question. It cannot be made sufficiently general to answer the requirement. In the opinion of many critics, its value for this purpose is very doubtful anyway. This remark, however, does not apply to informal or incidental instruction in religion, which, in the hands of skillful, earnest teachers may, no doubt, be of great value to supplement the appeal to personal and social considerations.

3. Formal instruction in morals is not in favor in this country, but it might be developed more extensively than at present, by those who have faith and skill in it. Especially instruction in civic duties should be systematically given, not merely instruction in civil government in the usual, narrow sense, treating of political or governmental machinery, but lessons impressing upon the pupil "the interdependent, organic, and co-operative nature of society the idea of the function or service of every person or organization as a part of society; and ideals of what society or community life should strive to be, what the individual should be, and what his attitude should be to make possible the realization of progress or betterment." (Adapted from Dr. J. M. Gillette in Rep. of Com. of Seven.)

(4) The principal factors upon which the schools of this country must rely for moral education are: the indirect effect of the regular school studies, among which literature and history, manual training, physical training, accounting, drawing and singing have pre-eminent value; secondly, the training through the general school discipline; and lastly, the unconscious but immeasurable influence of the teacher.

DOMESTIC SCIENCE WITHOUT A SPECIAL TEACHER.

LEAH MAY GAYMON, MAYVILLE.

The work of the school is to prepare for citizenship, to prepare boy and girls for their life work. This is the best education that fits a man or woman for the greatest usefulness.

We hear much discussion these days about the "old" education and the "new." The old or cultural and the new or industrial. The advocates of each of these plans frequently declare they themselves are all right and the other folks are all wrong. I would not take so radical a view but rather seek out the good in each and out of this organize a scheme whereby we may give the child the education that will give him a healthy body, a cultural mind, a loving heart, and a skillful hand.

But why this distinction anyway? Children should be able to do things as well as to know about things and in the doing of things in the right spirit there is opportunity for culture as great as in studying about what has been done. It is a strange anomaly to think it is educative for a girl where cotton grows, what place it takes among the world's products, where it is classified in the plant world; but for her to learn how cotton is prepared for weaving, to distinguish the best quality of cotton cloths and how to make herself a simple, beautiful dress from the cloth, is not educating her—no—no. President Northrop has put it in this fashion. "The most important and fundamental rule of education is not to leave out either in foundation or in structure the one thing necessary for what we propose to do." Women are the housekeepers and the home-makers. A man may build a house but it takes a woman to make a home. Our educational system was planned primarily for men. Woman has proven she could do the same amount of school work and equally as well. There is no place in the educational or professional world woman has not entered. The education woman has had has made work in the shop and office easier. Home is an unstudied problem. But woman has never and can never get very far from her womanhood, from her place in God's plan, to be the wife, the mother and the home-maker. But not having been trained for this she has a wrong attitude toward her work, thinks house work drudgery. Drudgery has been defined as trying to do what you don't know how to do. Mrs. Richards of the Mass. Institute of Technology says "along with the three R's we must add another right—living."

There already has been so much demand for home making, many schools have made provision for it with a specially trained teacher to direct the work, and with a generous equipment. Household science and art are no longer listed with the fads. Yet little has been done for the hundreds of thousands of children in our village and rural schools.

The cry comes up from the teachers there is no time for anything more, the course is already overcrowded, we are not trained for this work having been educated under the cultural method. The home has the equipment let the girl get her training for home making in the home as did her mother

before her. But she doesn't get it there nor can she. Housekeeping has not kept pace with the world's progress. Man long ago has distanced woman by his labor saving devices and scientific methods. She has done her work by rote and habit. The housekeeper today must do her work by reason, use, the light science has revealed toward a better, a healthier, and a happier life. She must learn to free herself of much that is wrong, that which encumbers instead of benefiting the home. Again a girl's training for home making has been crowded out by the many other things asked of her, regular school work, art, music, social life, travel, all good but "this one thing thou lackest." Among the poorer classes the girls leave school early seek employment outside the home and really know little of the home management. Where then but in the school could girls get the scientific knowledge and training required to solve today's home problems in sanitation, bacteriology and proper diet for health and efficiency?

Another objection, lack of time. Miss Jennie Snow of the Chicago University Model School said she would put household arts in the schools to save time if for no other reason and teach reading and writing, mathematics and science through this subject and the real doing of things and so make school and life real to the child. For example, a girl would quickly divide the quantities of a recipe were she to prepare some biscuit or make a loaf of bread when it might take hours for her to grasp these divisions and tractions in the abstract.

Here are nine points a professor of mathematics would give, for introducing Domestic Science and arts into the schools. (1) To give children an intelligent interest and a wholesome regard for the occupations of the home. (2) To bring home and school into closer cooperation toward social ends. (3) To give the young pupils a knowledge of and regard for elementary things by the scientific study of those common concerns of home life which mean so little but should mean so much. (4) To make young persons more keenly conscious of the great importance of physical health and vigor and consequently mental health by due regard to diet, sanitation, and right living. (5) To make pupils more intelligent regarding the procuring transportation and preparation of food, clothing, and shelter. (6) To impress parents and children of the school with the usefulness and the worth even in a physical sense of education. (7) To afford relaxation from mental tasks by engaging the hands as well as the brains in the work of education thus attaining to the motor as well as the mental interest of the child. (8) To enable children to be real social factors in the hour by comparing quality, cost and ways of preparing things in the home with similar things learned in school, thereby influencing parents to modify customary procedure toward something better and more economical. (9) To give your pupils a deeper personal regard for community interest and occupations in general and the persons in whose lives are identified with these interests.

Home science and art are so important, so vital that all other subjects pay tribute to them, other subjects might better be taught through these. I mention a class in arithmetic that bought a lot selecting it of course planned a house, built it on borrowed money selected furnishings even to

the broom and the biscuit cutter, computed entire cost, paid interest on the money, sold the place. Who shall say these girls did learn much arithmetic which was the primary object but along with that the pupils grew very near to home and to home conditions. Would anyone say that such an arithmetic did not effect as much mental drill, develop as high an order of intelligence as columns of abstract problems such as abound in our arithmetics.

Domestic Science affords an abundance of material in Commercial Geography. Your pupils learn North Dakota stands among the first in wheat production but do they know how flour is made, the grades of flour, how to know a good flour and how to make the sweet nourishing loaf of bread?

English is as closely allied to Domestic Science as it is to any other subject.

Studies in color, line and design for household furnishings and decorations, for dress make just as good material for art training as that obtained through any other medium of instruction. Art may be displayed in every department of the home, illustrating the principles of harmony, simplicity and beauty.

History with special reference to the home, the development of the household, the home, the household industries etc. is made more vital more related to civilization and its progress than when it is given in relation to politics and war.

One simply cannot teach physiology and hygiene successfully without including much about foods and their wholesome preparation, much about clothing, sanitation etc.

So much for correlation but as said before the subject is important enough to demand special instruction. Teachers should make this instruction meet the conditions of the community? Here one must exercise extreme tact. Our housekeeping is not all bad. Do not tear down and criticize until you have something better to replace. The means of giving lessons in cookery, the wholesome preparation of food are many. Once a week the school lunch may be planned and the pupils prepare and serve it. The limited time requires that part of this be done at home. One hot dish may be prepared on the heater or an alcohol stove. An earnest teacher will find some way of getting a few necessary utensils if the board will not provide. For five dollars one may buy a working equipment.

The boys may make a cabinet to keep these in—a good lesson in manual training. Let the work be truly instructive as to preparation, food value, neatness and method. Children as a rule would rather do things in a nice way when they know how.

Sewing and hand work can be taught without much outlay as to equipment. There are two quite distinct methods of presenting sewing, the model system sewing small patches simply to get the stitches (which by the way is anything but a model system) and by means of completed articles simple and useful. The children are by this means more interested in their work, they do better work have their creative instinct satisfied. They see and feel the articles grow in their hands. Be careful that the articles chosen do not take too long to make, especially in the lower grades otherwise

they may lose result a loss of interest. The articles must be simple and useful. They may have appropriate decorations, but lead the child to see the beauty in the simplicity and perfect workmanship. Accept only the pupils best effort.

As for time a half hour every week or every two weeks given at irregular periods so that no one subject suffers loss of time will not materially interfere with the studies.

The school picnic is your opportunity to have an exhibition and thus interest parents in the good work done. If there is a woman's club in the villages see that these women become interested. Once you have their attention the problem of ways and means is partly solved. In many places Domestic Science was started through the Woman's Club. Often the club furnished the equipment if the board furnished the room.

Our Agricultural Colleges are active in the attempt to bring about a better home and community life. They foster the agricultural and industrial contests for children. Illinois and Minnesota have done much in this way. The teacher should be their best assistant in arousing interest and directing work. The reflex of moral influence alone is well worth the effort. As interest deepens discipline disappears, the whole school awakens to a keen active interest in everything that pertains to school and home life.

I have considered at length the need of instruction and training for home making. In what grades shall lessons be given and shall the girls only have the work? As many pupils leave school in the lower grades, I would have lessons begin in the second grade in a simple way and have the course developed through the school life. Boys as well as girls may have the work. Not that they will use the knowledge directly, but there would be less friction in the home if both men and women had a better understanding of each other's work.

What shall you give? This is a problem one not having had a special course. The course in Domestic Science as mapped out by the state board of N. D. is suggestive and when properly developed in the hands of an earnest and enthusiastic teacher should give a comprehensive grasp of the subject. Domestic Science to most people means cooking and sewing. It is far more than that. The subject has been introduced in the schools by these but the teacher should have a large view of the term. Lessons in sanitation, hygiene, bacteriology, household art should be given. Lessons that will enlarge the pupil's ideal of home and home life and give an appreciation of the close relation between right living and efficiency.

You ask can all this be expected of teachers who have not had a course in Domestic Science? An earnest and enthusiastic teacher will find a way.

Practically all of the Normal schools offer Domestic Science; one may get this work without going very far. But for those not able to go away for training both the Chicago and the American School of Home Economics also of Chicago offer splendid correspondence courses. Professor Edna Day made the latter the basis of the one year course in Domestic Science at the University of Missouri. By the way Miss Day received her Doctor's Degree from Chicago University with Domestic Science as a major. Her thesis was on starch as a food. Think of granting the Doctor's degree

for proficiency in household affairs and original research in anything so common as starch.

The literature pertaining to the home and to the household is abundant and is being rapidly multiplied as a basis for work in cookery. I know of no better book than the Elements of the Theory and Practice of Cookery by Williams and Fisher.

The school fails in its mission if it does not give children a familiarity with the work of and the responsibility of home making. Awaken an interest and love for home work and thus pave the way for better and happier homes. Teachers you can do no finer thing, can not touch the world more effectually than by showing your pupils right living.

THE SOCIALIZATION OF HISTORY.

JOHN M. GILLETTE, UNIVERSITY.

In considering this subject I am not attempting to mark out the work and function of the historian in his original, specializing capacity as historian. All I want to do is to call attention to some things which the educational situation seems to demand from histories today.

The sooner we can banish the polite information idea from our history study the better off we will be. We must substitute for it the idea that history gives useful information, useful because it helps throw light on the problems of our times, or is a study of those problems directly. We want men and women who can tell where our chariot of state is going by knowing the meaning of the tendencies of the times. We want them to know how to vote in a national campaign on the tariff question because they understand what the relation of the tariff to themselves and the national life is. We want them to understand the political system under which they live in spirit and machinery well enough to be able to decide whether their rights among men are being subserved or subverted, and if subverted, to have some notion of remedies. We want them to get larger visions of social equality and social justice as against industrial exploitation and political deception, to burn with enthusiasm for the rights of man, to have ideals of a better society and faith in social progress.

Since history holds such a large place in the schools it must be held accountable for using this extensive and expensive time in the life of the child to secure directly practical results. It is a case of history or nothing just now, for history is about the only study now in the schools which extensively occupies this field.

Bad conditions in history work. Any criticism which might be made of the existing condition in history work of our schools must come from facts. We have results which stare us in the face as to what has not been accomplished in the past. We have an ignorant citizenship, ignorant of the meaning of the issues confronting us now and liable to be misled in their actions and attitudes relative to these problems. As a social fact we know that things are little understood. As teachers we know what the results are along these lines. For several years I took large numbers of pupils from the schools of the state into my classes in the normal at Valley City. I can testify to two things. First there was a deplorable ignorance of vital things relative to our national life. I may say that I never found a student from our elementary schools who had discovered that there was such a thing as necessary sequence, and as interdependence in human society. In other words society as an organic thing did not exist for them. It was not that they were not capable or that they were too immature. They were generally mature and they soon showed they were capable of grasping those easiest of all things in the range of history to teach. Second, there was a deplorable hatred of history and an aversion to contemplating the thought of further history work. It was not pleasant to reflect on my position as

a teacher of such a despised subject and on my association with such an unpopular line of work. Yet I found those same students coming to like this field of study when they found that there was law and order in the historical field and that it was not a matter of memory work but of appreciation and understanding. My last year in that institution I took a class of some sixty students, of the kind I have described, and as a part of their work studied with them dry looking tables of immigration and poulation, getting an idea of the laws of increase and finding the causes of the variations in rates of increase in races and regions. The interest the class manifested in what, on the face of it, would seem very dry material for students of that grade of work, was a revelation to me as to what might be done in rationalizing valuable historical matter. I think it is what anyone sufficiently informed could expect to accomplish.

In addition to what I learned from my own experience, we have a line on bad conditions in history from reports on history examinations in our other states. The record runs that more teachers fail in their history examinations than in any other subject and in such an overwhelming manner as to create a problem. The nature of the subject when adapted to the ages of the pupils should not be so much more difficult than other subjects as to make this difference in resulting scholarship.

Poor texts and poor teaching. In explanation of these results we may say they are partly due to poor teaching and partly to poor texts. And since most of our work in this country is done by means of text books it looks as if the whole thing might be closely connected with the texts. Of course there are cases of poor teachers which a text, however good, could not redeem. But we cannot explain the large results spoken of by means of these cases alone. I have located the reason chiefly in the defects of the text books in use.

The first defect lies in the kind of content or subject matter selected and embodied in the texts and a study of the matter has led me to conclude that the writers have had little or no perception of the comparative value of the material for cause and effect purposes. Instead of testing their material by the criterion, what is most determining and what are the really greatest episodes? Matter has been placed in the books because it has been the fashion of previous history writers to put such and such topics in. In other words, our history for schools has been on a traditional basis rather than on a rational. It has been chiefly military and political only until recently, and it has handled these things in a lifeless, merely enumerative manner. And while recently some considerable social material of another kind has been put in, it has remained aloof from the other as a kind of outside spectator.

There is also a great defect in the texts in that they devote too much time to remote events in time and too little to those which are near. Our histories have commonly proceeded after the spirit of the statement the philosopher Hegel made relative to the Chinese. A Chinaman is first good for something when he is dead. So our text book makers have supposed that only dead history is good history and the deader the history the better. If it was a matter of general history they would spend most of the time

on ancient history; and if either modern or ancient were to be omitted it would be the modern. If it was a case of American history the colonial would get the benefit of the greater time as compared with the national; and some books seem to think that this present end of our national history was hardly worth mentioning. Both kinds of procedure are wrong. The present is the only time worth anything for the average man and the past should be given him only in so far as it is made to bear a vital relation to the social situation now confronting him. The average man gets only a little time to give to the study of social matters and he should be led to those which are important to him as directly as possible.

The third defect of texts is in the matter of organization. I should say that most of our histories show a momentous lack of organizing principle. They are mere jumbles of things. I have in mind texts written for secondary schools by some of the reputed historians of our country which are mere epitomes of all the incidents which have in any way got connected with our national career. They are about the best illustration of the original chaos of matter that I can think of. Such histories contain over half a thousand topics. These topics in their arrangements have little or no relation to each other as a general thing. They are strung together as they are just because their events happened in that order. This is a mere chronology, not history. There is a dearth of thought and rationality.

We have scores of books about as bad in elementary, secondary, and even college work. The writers seem not to have considered what history study is for. Even if it were for disciplining the reason, they would fail because the rational element is absent. And I judge that these shortcomings are present in so many cases because history study has been regarded as a means of getting a certain kind of polite information.

Process of reconstruction. Reconstruction of history for better teaching purposes would naturally fall along the lines of the criticisms which are made. This reconstruction must be made either by the teachers of history, as they take up the work with the classes, or it must be made by the text writers. And as I have remarked, since we teach mostly by texts, we have to think that the writers will have to do the reconstructing.

First, the merely traditional matter should be eliminated. I should work my criterion of value here for all it is worth as it relates to the matter or content. According to my criterion anything is in the merely traditional class which has not quite visibly affected our current of development. By this standard I should relegate to the rubbish heap much of the matter relative to discoveries and explorations, about all which relates to the record of single colonies, much under the head of colonial wars and Indian wars, many of the events leading up to the Revolutionary war. In the national period I would cut out much that has been put in relative to national presidential campaigns, election accounts and administrative events; a large part of the military records in the way of detailing single battles and unimportant campaigns; all the so-called literary history because we have literature in the schools apart from history; much that has been introduced of an intricate nature under foreign affairs in the period following the beginning of our present constitutional government; and much of the merely

political reconstruction chronicle. By means of eliminating this material which is inherently worthless and uninteresting, and for our national development in the light of our present institutions is inconsequential, we would gain much needed time for either better historical matter or for the introduction of the vocational lines into our schools. Other of our subjects besides history must undergo a like surgical operation for the same reasons.

The second process in reconstruction is the incorporation of material of a more vital nature in the place of that eliminated. To demonstrate what this would be and how it should be worked out would be to write a text. About all I can hope to do is to indicate some of the more important things commonly omitted or left undeveloped. In the pre-national period there should be a larger development of the economic causes of the discovery of America, and of the so-called Revolutionary war. The latter in particular is still undeveloped in the best of our school histories. The only place I find adequate treatment of this phase of the struggle for separation is in industrial and economic histories. Another colonial matter not enough treated is the development of religious toleration and the beginnings and growth of our American system of entire separation of church and state. Any one who cares for freedom of thought must be sensible of the advantages of the American system over the old system of state religion and this is emphasized by the fact that the biggest struggles for human emancipation right now are going on in Europe to put those states on the American basis. There is one place in colonial history I would wish for an incorporation of a treatment of the formation of our national life which is entirely omitted from our histories. No one thinks it worth while to explain that our union was only made possible because the thirteen colonies had more things in common, had more similarities, than they had differences. In fact I would challenge anyone to give a historical instance of thirteen states which were unlike in race, language, political and social institutions, and in literature, religion and traditions, ever getting together and forming a perpetual union, even under the stress of a common enemy. This is the fundamental set of facts in explanation of the formation of the nation, the union cannot be rationally explained without them, yet they are not mentioned, much less developed in our texts.

In the race for the possession and control of America, there should be some development given to the consequent significance of the outcome for civilization and especially for American civilization. Fiske called the capture of Quebec the turning point in modern history. He may not have been correct but it was an unusually important event.

A more adequate treatment of the industrial and political system which prevailed at the time of the struggle for independence than is now given should be made. A good all around study of existing society at that time would be far more valuable than the attempt to detail the successive events in all the various colonies. Particularly I think the home and domestic system of production, which then prevailed, in its significance for labor, consumption, and possibilities and restrictions of life should have an extended treatment. A vivid description of the productive processes which were carried on on the plantations under slave life, on the small farms

in New England by men and women under their primitive division of labor, of nail-making, shoe-making, cloth and garment-making, etc., would go far to make the life of that period real and to give a grasp of the interdependence of the various divisions of labor of each other.

In our national period I shall make a general statement and say that I think our histories are deplorably weak in their development of the economic background of our national life, and in showing the rational significance of that part of the economic matter which is introduced. It is a stupendously significant thing to me that our young people can and do get out of from one to four years in history study without knowing there has been an industrial revolution, and without knowing its vast significance for human life. Yet who could explain in any scientific way the factory system along with our present system of producing material goods in factories and on farms and the consequent difference it makes for life today as compared with life before as seen in colonial times and in the frontiers, the appearance of new transportation and communication agencies, of the great daily, weekly and periodical press, of great cities on every hand, of the appearance of gigantic organizations of labor and of capital with their consequent conflicts and problems, and of many other phenomena without taking up in an expansive and systematic manner the industrial revolution. It has made a new order of things and I am free to declare, that you can give no history during the last hundred years in any civilized land without dealing with this subject, for it was truly revolutionary in that it transformed society in spirit and organization in fundamental ways and there is not a phase of life that has not been and is not affected by it. It is the machine age we are in, the age of inventions. This distinguishes our age from all preceding ages even more than does our political peculiarities, not only in the fact that it exempts men from doing much of the drudgery connected with production by their own muscular power, but in the fact that it has specialized and differentiated society more in a century than had been done in all preceding ages by all the agencies men had previously devised, and further in the fact that the special forms our problems of society take today have their explanation in the appearance of these revolutionizing inventions.

Another indication of the short treatment of economic matters in our history is the fact that our students have little conception of the causes, nature, and importance of a great social phenomenon which has occurred every ten or twenty years in our national life, and that each time it occurs shakes our social fabric to its foundations. I mean what we call panics and depressions. It is an educational abortion that we should spend from one to four years in studying, or studying about human society and yet turn out people for citizenship who do not know the common causes of one of the most ordinary and important events. Why not write a chapter on panics in the text, describe and treat all our important panics in such a manner that the similarities and consequent explanations would appear, so that the man and woman would be in sight of giving a scientific account of them and could help to shape human affairs for their control? Is it because the text makers do not understand the subject or because it might

destroy the artistic symmetry of the book? But if history is of any use it must give such an account of affairs that we may understand and so be able to control them. Our histories, if they are going to occupy the field, must do the necessary things.

In the same manner we would need to give an adequate economic account of the rise of monopolies, of their significance for life, of their causes in the peculiarities of the times, of their extent into the various lines of transportation, manufacture, distribution. We would need to show the connection between modern business life, and government, so that the citizen might see the exact place and function of government in organized society. I venture to say that most of our people have no sort of notion as to what the legitimate function of government is, and consequently are all at sea as to where government should begin and end in relation to businesses of all sorts.

A great uncultivated gap in our political history exists relative to our political parties. I have found few pupils from the schools who have come to me who have had an idea of the meaning of parties in our history. They are just things to study about but they do not mean anything to them. I think it is easy to maintain that the place to begin to study our government is with the parties, and that we cannot know much about why our political history takes the course it does without seeing that those organizations which control the avenue to governmental positions control the government and government policies. In other words, we have to get down to a study of party organization by means of which they control nominations and elections. This is more indispensable, as a matter of understanding our government than a study of the constitution of the United States.

Organization of history material. As to the matter of organization of history material into text book shape, a great deal ought to be said. Of course the average teacher can do little more than reproduce the matter of the text in just the shape in which it is placed in the text. The chop-feed method of treatment of our histories in general, therefore, is a bad method of class presentation. The logic of events is lost because of the hop-skip-and-jump procedure from the political to the industrial, then to the religious, to the literary, etc., and this every ten years. There is a discontinuity that is bewildering. History is shot full of gaps. Neither teacher nor pupil put things together in a casual way.

In my estimation our texts would do better if they would pursue what I think of as the continuous development method of presenting matters. I mean to take up one line of interests or activities and carry it through the course of a whole epoch or period without interjecting between its parts in the course of the period other kinds of interests and activities. I have tried this and found it works in an admirable fashion. To illustrate I will name the topics I carried through continuously from 1789 to the Civil war, or such as extended through the whole of the period: Organization of government and parties; struggle for commercial independence; westward expansion of territory; population and transportation facilities; revolutionizing inventions and processes; political parties and doctrines; establishment and growth of protective tariff; some problems in finance

and banking; development of the slavery issue; chief international problems.

And when we reflect we find that this continuous development of a single series of events or interests is just the sort of knowledge the citizen needs. He needs to know the tariff history in itself, the financial history in itself, party history in itself, and so on. He must know it this way in order to understand it. If it is not developed that way for him in school he is likely never to develop it and, hence, always be ignorant.

The briefest kind of sketch of this matter deserves that some attention should be paid to adaption of history to the different ages or educational stages. Mainly, I think, the adjustment should consist in pedagogical devices rather than in the matter, although I am aware that the exponents of the concentric circle view have been led to admit that in covering the circles of history, each time in a more exhaustive manner, really new material is given. Yet I maintain that the object is the same for all ages, namely, to give as good a knowledge of the working of the child's own society as the stage of mental development will permit. Essentially the same matter of community life must be given in order to secure this object, although the form which the material takes will vary widely. A knowledge, in the larger aspects and in the social relatedness, of our social processes, for instance, can be given quite young children so that they can see the work and significance of mills, railroads, telegraph, farmers, schools, government, and so on, for our lives. The same material later on is more systematized and put under the reign of principles. But in each stage we should avoid wasting time on mere frills under the mistaken idea that the child cannot grasp vital social facts.

DEPARTMENT OF
COUNTY SUPERINTENDENCE

MINUTES

Bismarck, N. D., Oct. 19th, 1910.

The county superintendents of the state assembled in the Senate Chamber in the State Capitol building on the above date at 9:15 o'clock A. M. The meeting was called to order by State Supt. Stockwell, who stated the purposes of the meeting.

As it was impossible for Deputy Supt. E. J. Taylor to attend the meetings, Supt. C. L. Vigness was elected secretary pro tem.

On roll call the following county superintendents, deputies and superintendents elect responded:

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|--------------------------|-----------------------|
| Adams County | Fred Davis |
| Barnes County | Minnie J. Neilson |
| Benson County | Effie D. Hoadley |
| Billings County | Jos. A. Kitchen |
| Bottineau County | P. E. Christensen |
| Bowman County | H. O. Saxvik, Deputy |
| Burke County | Not represented |
| Burleigh County | C. L. Vigness |
| Cass County | Mrs. Mattie M. Davis |
| Cavalier County | Not represented |
| Dickey County | Geneva M. Lovell |
| Dunn County | C. L. Melby |
| Eddy County | Mrs. E. M. Roach |
| Emmons County | Henry H. Hanson |
| Foster County | Mary J. Cain |
| Grand Forks County | Helen Prindeville |
| Griggs County | I. A. Kampen |
| Hettinger County | Josephine K. Steake |
| Kidder County | Ora L. Hurd |
| LaMoure County | Laura B. Sanderson |
| Logan County | R. A. McCalmont |
| McHenry County | Dalton McDonald |
| McIntosh County | Not represented |
| McKenzie County | Nora C. Byrnes |
| McLean County | Henry C. Loftsgaarden |
| Mercer County | Not represented |
| Morton County | W. F. Lorin |
| Mountrail County | Bessie M. Kane |
| Nelson County | B. O. Skrivseth |
| Oliver County | Not represented |
| Pembina County | Mrs. I. A. Burley |
| Pierce County | Lucy B. Seiple |
| Ramsey County | J. A. Haig |

| | |
|-----------------------|------------------|
| Ransom County | W. G. Crocker |
| Renville County | Not represented |
| Richland County | Not represented |
| Rolette County | E. M. Sherry |
| Sargent County | Tene McCarten |
| Sheridan County | C. F. Eberly |
| Stark County | Not represented |
| Steele County | A. G. Miller |
| Stutsman County | F. M. Wanner |
| Towner County | John Gang |
| Traill County | Guri Wambheim |
| Walsh County | B. B. Wells |
| Ward County | E. G. Warren |
| Wells County | Maude T. Regan |
| Williams County | Mrs. M. P. Tatem |

On motion of Supt. John A. Haig, Miss Helen Prindeville was elected member of the nominating committee of the general association.

The first paper read before the meeting was on "Relation of Health to Morality" by Supt. G. M. Lovell of Dickey county followed by Supt. Tatem of Williams county on the same subject.

Advisibility of State Aid to High Schools offering work in Preparation for Rural School Teaching, was presented by Supt. C. L. Vigness of Burleigh county and Supt. F. R. Barnes of Richland county. It was decided to hear the paper of Supt. E. G. Warren on "State Aid for Rural Schools" which was read and followed by a general discussion lead by Supt. F. M. Wanner of Stutsman county after which meeting adjourned till 9:30 o'clock A. M. Oct. 20th.

October 20th, 1910.

County superintendents met pursuant to adjournment. The regular program was taken up. Supt. Bessie M. Kane of Mountrail county read a paper on the "County Superintendent's Authority." Supt. Fred Davis of Adams county read a paper on "The Commercial Value of Elementary Agriculture." The last regular paper was that read by Miss Jessie Hoover of the State Agricultural College on "Domestic Science."

The report of the school law commission followed. E. J. Taylor presented the proposed changes regarding the organization of districts, salary of county superintendents and abolition of the office of school district treasurer.

Prof. Jos. Kennedy presented the certificate law which will be recommended to the coming session of the legislature. After which there was a general discussion.

The county superintendents then adjourned to meet with the school officers on the forenoon of October 21, at which time a joint meeting of school officers and county superintendents was held in the House Chamber.

After a discussion of propositions of school law the meeting adjourned to meet at the call of the state superintendent.

C. L. VIGNESS,
Secretary pro tem.

THE RELATION OF HEALTH TO MORALITY IN OUR
PUBLIC SCHOOLS.

MRS. G. M. LOVELL, ELLENDALE.

The child when he enters school is generally full of life and vivacity. Seldom do we see a listless, lazy little child with slouching walk and stooping shoulders. The habits formed in school or in work at home develop many defects in the growing child. Let us consider what the school does for the child physically either to harm him or to benefit him.

One great detriment to the child entering school, heretofore as active and free as the air, is to require too long sitting in one position allowing him to sit in a stooping posture while studying his lessons. Many of our teachers are so young that they do not notice the evil tendency in this and allow it to continue day after day until the spine is bent, muscles of the back lose their elasticity, the chest is contracted, and the evil is done permanently. It requires herculean effort to undo such habits and, in a great proportion of cases, the habit is never overcome. The child who loves to read will often double himself up for hours over some fascinating book, too absorbed to hear the admonition of teacher or parent to sit erect if they should chance to admonish him thus. There is the lessening of lung capacity and the cramping of the stomach both of which reduce the physical power of the child and bring attendant ills.

The illy-ventilated school room is a thing of terror if we view it in its proper light. To compel a child to breathe in air robbed of its oxygen and laden with carbon dioxide and germs of disease, that is filled with dust from the street and chalk from the blackboards, contaminated and adulterated, is a slaughter of the innocents slowly effected.

The dry dusting system of cleaning school rooms is a harmful ally in such a school. Haven't you heard of school that did not even have an annual scrubbing of floor and furniture, where the walls were uncleansed from year to year? Some teachers have to do this work themselves in order to get it done and bring about a more healthful condition. Extremes of temperature and dryness of atmosphere often brings illness to children exposed to them and are fruitful sources of physical deterioration.

Indifference of teacher or school boards to contagious diseases often subject healthy children to contagion and contraction of the disease is the result with, ever and anon, one who does not return to the school room but whose bier we pile high with floral emblems to show our grief. Better far had it been that expression of love had been turned into the channel of greater thoughtfulness for the prevention of contagion!

We build many school houses with more regard for the beautiful, symmetrical appearance of the exterior than with regard for the children who are compelled to sit with eyes exposed to strong light or bright sunshine several hours of the day. The eye, the window of the soul, is seriously affected as, day after day, this treatment continues. Again, on the other hand, I have seen evil effects from too little light so that pupils sitting in

the dark corners of the room were under a constant eye strain in doing their work.

Lack of proper food for the lunch is not a fault of the school primarily but I think teachers could encourage children to bring better food than pie and cake by their example and precept. Insufficient water is a hardship and a cruelty to thirsty little children who like to indulge long and frequently at the life giving draught if only man were kind enough to provide such for them. The common drinking cup comes in for its share of condemnation and its repulsiveness and danger are never considered in the greater part of our schools.

Sometimes too much work is expected of pupils, sometimes the study hours are too long, and the rest periods are too infrequent. Recesses have been done away with in many schools the chief reason being because of the evils learned upon the school ground. I am of the opinion that imbibing fresh oxygen will overbalance the evil alluded to.

We have briefly reviewed some of the faults in our public schools relative to the physical well-being of the child but as we turn to contemplate the other side we are glad to testify that we have many schools in which the child is benefited physically by attendance therein and carries into his home the practice of such instruction.

We have clean, cheerful, well-lighted and well-ventilated school rooms. We have teachers who teach cleanliness of person by example, by instruction, by playing games in which those who have "snowy little fingers" can participate. We know of some who call the roll to ascertain those who have brushed their teeth. We have laws on our statute books that look toward the physical development of the child and we have many schools where the spirit of this law is being enforced. We have agitation of the prevention and cure of tuberculosis and now that people are being awakened to the necessity for immediate and systematic application of the remedies suggested we hope to see this dread scourge eliminated from our midst. We have the individual drinking cup and sanitary fountains for water. We have the damp system for cleaning school rooms. We have active boards of health that remove from the school any one affected with a contagious disease and rigidly enforce the quarantine. In some city schools, healthful noon-day lunches are provided.

I have thus far only considered a part of my subject—the health of the pupil—but the topic for discussion is how the health affects the morality of the pupils. As a sound mind exists only in a sound body so any diminution of physical power causes a loss of mind power. True we have had great minds encased in frail tenements but this does not affect our argument. They might have been much greater had their physical endurance been more powerful. Children who are required to stand firm on both feet while they recite, to walk in an erect manner, to abstain from lounging, to take care that they do not violate rules of health are learning physical self-control and in learning this they also learn moral self-control.

One good thing that our schools do with many children is to create habits of fully occupying their time so that when out of school they will know how to employ their time and will not be pining for some new excitement or

means of recreation. Failure to learn this lesson often brings them into places of doubtful reputation and marks a step toward immorality.

If fatigue arises in school from any cause, it is Nature's warning that the body is over-taxed. Weariness will occur more quickly in a body not well-fed nor healthy and difficulties of discipline follow. A very little exercise will often bring the body back to its normal state. Give pupils frequent physical exercise or music or anything that will employ a different set of nerves or muscles. We are told that irritation is due to an acid which is formed in the blood after severe activity and that it is relieved by a fresh supply of oxygen. If this is not supplied, the pupil will be unable to do the task assigned to him. Recitation period finds him unprepared. What the outcome of that recitation will be we cannot say for a certainty but, at the least, he will have to acknowledge his inability to respond intelligently to the questions of his teacher. This, if it be a first offense, will bring with it a feeling of shame or remorse but that soon passes away and he realizes that he has escaped from the drudgery of preparing that lesson; and the same thing is repeated daily until "flunking" is considered by him as quite the correct thing. Often jealousy takes possession of his soul when he listens to the clean-cut intelligent explanation of the studious pupil as he proceeds to answer the questions upon which he has failed. The knowledge of this state of affairs requires more deception to keep his parents from learning of this. Thus one sin begets another. What was at first weariness has brought about laziness and deception. Irritability causes its share of troubles which would never develop were the health what it should be and that health safe guarded by rests and fresh air. We all make excuses for the fretfulness of a child at bedtime because his little body is too fatigued for him to be agreeable. So it is with children of a larger growth. We ought to minimize the vexatious periods.

In a child's school history, there are times when the mind is incapable of severe mental effort owing to the rapid growth of the body. To require a growing boy to produce a dissertation on some abstruse subject when he wants to employ his muscles in vigorous manual labor or active sports is as equally impossible for him as it would be to expect a mature man to enjoy the pounding, tumbling antics of a growing boy. We haven't learned this yet as our courses of study testify. And the boy hates school and its impossible requirements. His anxious parents keep him there and he keeps busy dodging the hated work. Say you, his morals are improved by such course of action?

Educators, recognizing the intimate relation between good health and efficient work or moral uprightness, have in many city schools caused medical inspection to be made regularly of school children with very favorable results. Children affected with adenoids or enlarged tonsils or diseases of the eye or ear were relieved of these troubles and much better work was obtained and some who had been looked upon as morally degenerate were freed from the predisposition toward crime that formerly possessed them.

I believe that departures from the path of moral integrity are more than half of them caused by a morbid state of health. Without bounding health

and a cheery, ringing laugh a child does not live fully and completely and his mind contemplates morbid things which will dwarf him spiritually.

Were I to discriminate between the city and country schools, my decision would be favorable toward the latter as producing a more morally sound class of children because they revel with Nature, eat of her bounties at first-hand and whose doctors are sun and fresh air. Perfect health, athletic soundness and vigor of constitution bring with them moral uprightness.

Elbert Hubbard's doctrine of the efficacy of a laugh is not to be dismissed as one man's hobby. Try it and see pessimism slink away to its dark corners and music and joy in the soul take possession of the man.

An exhaustive article recently published in the daily papers gave the results of the investigations of a physician in a penitentiary. His opinion was that drunkenness is due to a diseased condition of the mind and that persons so affected should be confined in places of detention and treated for at least a year. Three-fourths of all crimes committed is due to drink and this arises from diseased minds. Foreigners are harder to cure than native Americans as these habits have been indulged in by many generations. This argument applies with equal force to the school child. The more healthy it is the freer from disposition to do wrong.

In closing, let me quote from Mrs. Sedgwick "It is the opinion of those who best understand the physical system that if all the physical laws were strictly enforced from generation to generation, there would be an end to the frightful diseases that cut life short and of the long list of maladies that make life a torment or a trial and that this wonderful machine, the body, "this goodly temple" would gradually decay and man would at last die as if gently falling asleep. Also from Martineau "The health of community is an almost unfailing index of its morals."

THE ADVISABILITY OF SPECIAL STATE AID TO HIGH SCHOOLS OFFERING WORK IN PREPARATION FOR RURAL SCHOOL TEACHING.

C. L. VIGNESS, SUPT. BURLEIGH COUNTY.

The problem of supplying our rural communities with properly prepared teachers should deserve our most serious attention. The rapid development of the middle and western parts of the state calls for an ever increasing number of teachers; and the trend of the times calls for better trained teachers.

It needs no arguing that our normal schools at the present time are unable to meet these demands for teachers. Their graduates take up teaching in the cities and graded schools in the towns, and the rural schools get practically no teachers from them. Consequently, the rural schools must seek its teachers elsewhere, and they very naturally turn to the high schools. The result is only a little better than might be expected. The high school graduates are called upon to do work for which they have absolutely no training, and the country boy and girl must work out their salvation under the guidance of untrained teachers. It is really to be wondered at that the results are what they are. The good book tells us that when a blind undertakes to lead a blind they will both fall into the ditch. It is to be wondered at that not more of our rural schools go into the ditch because they are not in condition to give the training which the times demand for the rural population.

Now many states have undertaken to offer some remedy for this. Some have established departments in connection with the high schools, others have established county normal schools and still others have established smaller agricultural colleges—all for the purpose chiefly of offering work in preparation for rural teaching. Our own state has done very little along these lines. It does a great deal for the encouragement of higher education, but for the uplift of the rural schools and with them the rural communities, very little has been done. The last session of the legislature enacted into law a provision for a 10½ month course in the state normal schools for rural teachers which is excellent so far as it goes; but it is too limited in its scope, and will cover only a small fraction of the real demand for trained rural teachers.

I suppose it is universally agreed that education should prepare for complete living. According to Herbert Spencer, this implies training for self-preservation first, then for parenthood, citizenship and finally in the refining accomplishments which he terms ornamental. He places self-preservation first in importance to the individual.

If we question the reason why the state should spend money for the training of its citizens, the answer will be that it does so primarily for self-preservation. The state wants to live, grow and develop, and it can do this only when its people are able to live, grow and develop. Hence, it spends yearly lavish sums of money for school purposes and tries to look

carefully after the schools. The culture the individual citizen may acquire from this training is of secondary importance to the state. It spends this money with an eye to its own interests, and the question of business expediency comes up for consideration.

HOW DOES THE STATE SPEND THIS MONEY?

Not long ago I read an interesting account of a report on the school system in Minnesota. A committee appointed by the Bankers' Association of Minnesota to give the educational system of that state a careful investigation came to conclusions something like this: The state had no systematic plan for agricultural instruction in the rural communities; the scheme of education is the same for all children regardless of possible future vocations. The scheme leans largely in one direction, namely, in the direction of the professions. Almost nothing is planned to interest children in the farm and farm life. Teachers lack interest in the agricultural subjects. The same committee says that Minnesota spends annually about \$14,000,000 for education. All the schools of the state had enrolled 435,109 children. Out of these only 1,318 are taking agricultural courses. In other words, Minnesota spends \$14,000,000 to educate 434,000 consumers and 1,318 producers, or approximately 430 food consumers to each one food producer. Is it any wonder that there is a severe strain somewhere in our economic conditions? This brings out another and probably a new phase of the great conservation problem. It would be interesting to have a similar report from our own state, but I feel safe in asserting that it spends its money in very much the same way—to educate consumers rather than producers.

Is this business wisdom on the part of the state? Or would it not be better for it to furnish our rural districts with teachers that will subserve the community interests to better advantage? At the present time it is very liberal with its expenditures in behalf of these who aim at a college and university training. If we take this as a cold business proposition it seems that the money is not used to best advantage because it benefits the favored few and a very small per cent at that, while the great mass of the people do not receive the training they most need. The work done in our rural schools is very little if any better than, it was twenty-five years ago unless it be that it covers more ground. It is probably more extensive at the expense of the intensive in education. Like the farmer we try to cover more acres but the yield per acre is diminishing every year. What is the reason? The farmer does not understand the proper soil conditions; nor does the teacher understand the conditions of education that will bring the school life and the home life together. The school does in no way represent and picture the community interests of its surroundings. Its work is entirely apart from the life around it, and the result is that our boys and girls tire of this kind of school work and drop out at the first opportunity.

This is the situation, and the great discrepancy comes from the great lack of properly trained teachers who understand the needs of the rural schools and rural communities. We therefor turn to the state with the argument that as a business proposition it must educate for rural citizenship as

well as for the urban; and that the rural schools must receive first consideration in order to prepare men and women as a producing class rather than as a consuming class. When the state will recognize the specific needs of the rural schools and train teachers accordingly, it need not worry much about the other institutions.

As stated before, the rural schools at the present time must draw upon the high schools for their teachers. Many of these teachers may be born and raised in the city, and know nothing about rural conditions. They have studied their geometry, Cicero and Virgil, but know nothing about farm life, and in many cases care less. When these are sent out to teach what can you expect? There were introduced in the last two sessions of the legislature, bills for special aid to rural schools meeting certain reasonable requirements as to equipment, length of term, etc., and we worked earnestly to engineer these measures through but they failed. If we look upon this in the light of present day North Dakota conditions, possibly we would conclude that our law-makers were not far wrong after all. Were we not trying to hitch the animal the wrong way? Suppose this measure had been enacted into law, and certain rural schools had met the requirements in every way and then were unable to find the most essential factor—the properly trained teacher? The state of North Dakota would not have fulfilled its part of the contract with those districts, and the results would have been discouraging to say the least. No, let the state begin at the bottom of the ladder and prepare teachers that may go into the schools on our prairies with the kind of gospel the conditions on those prairies demand.

HOW SHOULD THE STATE SPEND ITS MONEY?

In order to answer this it might be well to gather information from some of the other states. I shall mention New York and Minnesota in particular.

The state of New York has on its statute books a provision granting a special aid of \$700 to academies and union free schools which maintain departments for the training of rural teachers. The Commissioner of Education designates the schools in which instruction in the science and practice of common school teaching shall be given, distributing them equitably throughout the various parts of the state. The schools shall give instruction to classes of not less than ten nor more than twenty-five scholars for not less than thirty-six weeks. The commissioner prescribes the conditions of admission to the classes, the course of instruction, and the rules and regulations governing this work. Such school must have a room or apartment separate from all other departments of the school, in which the training class members may be seated and no others unless members of the graduating class of the current school year. This room must be suitably equipped and opportunity must be provided the members of the class to observe methods of teaching in the several grades, and to teach under proper criticism and direction. Not less than four forty-minute recitations each day are required. The teachers in charge must, of course, meet certain requirements as to qualifications. No candidate under seventeen years of age may enter these classes.

The candidates upon being admitted must subscribe to an obligation that it is their purpose to engage in the teaching of the public schools of the state of New York at the completion of their preparation and that they will remain in the classes the entire year unless sickness or other excusable cause should prevent.

Minnesota has two very excellent laws in operation. The first one provides an appropriation of \$2,500 to each of ten high schools for maintaining a department in agriculture, manual training and domestic science. This law has given a great impetus to this phase of education in our sister state and it has no difficulty in finding high schools ready and willing to meet the requirements. This law will undoubtedly receive amendments from time to time so as to take in more than ten high schools, and should be watched with interest.

The other provision grants a special aid of \$750 to each high school maintaining a special training department for teachers. It is somewhat similar to the New York law. The conditions that a special teacher is engaged whose entire time must be devoted to this particular work, and the students take no other work. The course of study embraces a thorough review of the common school branches, together with practice teaching and observation work. The State Superintendent of Public Instruction, Mr. C. G. Schultz, writes in this connection: "These departments have grown in Minnesota through the last two years from less than ten to the present number (55), and I look for them to increase until we shall have one or more in each county in the state. I am convinced that this must be the plan followed in Minnesota for the professional training of teachers for rural schools. Graduates from our normal schools go into teaching service in the cities and graded schools, and very few of them take up teaching in the country."

What superintendent Schultz says about conditions in Minnesota applies with even greater force to us in North Dakota. Our normal graduates disappear from the country, and the country schools do the next best thing: look to the high schools for its teachers. The high schools are called upon to furnish workers in a field for which they offer no preparation, and right here is the weak point in the educational scheme of our state. The high school is a creature of the state and should be subservient to the best interests of the state,—and that is not drilling students into Romans, Germans or ancient historians in preparation for the colleges only, but in providing teachers as well. I am convinced that we can inaugurate no educational reform that would be more effective and beneficial at the present time, than the establishing of departments in connection with our high schools for the specific purpose of training rural teachers. It is far from me to say that the appropriations for higher education should be reduced; but business prudence would indicate with unanswerable argument that the state must educate towards the productive fields of labor, and with this end in view it must furnish the rural schools with teachers who can instruct and inspire in matters of the greatest community interest. These schools should above all be embryonic representations of the community life around them. They should give more than intellectual knowledge of society; they should vital-

ize this knowledge by concrete facts and intelligent experimentation. They should, in other words, give actual work in the science of agriculture, manual training and domestic science, and thus bring their students in actual contact with problems of production for the maintenance of life. If this ideal shall be attained in any measure, the state must take steps to place teachers in the rural schools who can do the work, and its money would be spent in accordance with business expediency.

THE CERTIFICATION OF TEACHERS.

JOSEPH KENNEDY, UNIVERSITY.

Ladies and Gentlemen:- I assure you that I express the unanimous sentiment of the School Law Compilation Commission, whom I have the honor to represent on this occasion, when I thank this body for the opportunity to present to it the changes which we are to recommend in regard to the certification of teachers.

We invite your sympathetic co-operation and your friendly criticism in our work.

The commission, as you know, is composed of the present efficient deputy state superintendent, Mr. E. J. Taylor, who, by the way, is to be our next state superintendent; Professor R. M. Black of the School of Sciences, who has had practical experience in all grades and kinds of educational work; Professor A. D. Weeks, head of the Department of Education at our Agricultural College; Attorney General Andrew Miller, to whom the commission refers all legal and constitutional questions; and your humble servant.

I wish, at this point to pay a merited tribute to the other members of the commission. I am reminded of the truth of John Locke's philosophical contention, that if men would lay aside all prejudice, possess themselves of the facts, and seek truth solely, they would ultimately come together and agree. The commission has tried to do this, and as a result, we have succeeded in coming to a unanimous recommendation on every point. It is true we have not always agreed on minor matters, but we have never allowed these to hang us up in regard to the weightier matters. And so I wish to testify publicly to the magnanimity of the members who are always ready and willing to take as well as to give. It is only a body of free, independent thinkers who can come to an agreement upon the larger things, notwithstanding minor and individual preferences and differences.

And now, ladies and gentlemen, this is what the commission most devoutly wishes of you. This is why I thank you, on behalf of the commission for the opportunity to present the result of our work up to date. I hope your attitude will be—and I know it will—the same as that of the members of the commissions in its deliberations. What we feared most is that the main and large issues might be overthrown and fail of legislation because of disagreement on minor points. This has been the trick of obstructionists in all ages. It is the repeated result of the "Apple of Discord." And so I would ask you to be on your guard. You are the chief parties at interest in the certification of teachers, my theme in this discussion. If our main lines, our changes on important and large matters, appeal favorably to you, the commission would ask your cordial support in the enactment into law of our compilation, trusting to experience to modify, if necessary, minor details.

I can do no better now than to read to you the important sections relating to the certification of teachers, confidently trusting in your hearty sup-

port and inviting criticisms in writing upon any of their features. I promise you on behalf of the commission that all criticisms so submitted will be carefully and conscientiously considered.

BOARD OF EXAMINERS.

A state board of examiners is hereby created consisting of the state superintendent of public instruction who shall be secretary thereof and four other persons actively engaged in educational work in this state, who shall be appointed by the governor each for a term of four years, provided that the term of the first board shall be, two members for a period of four years and two members for a period of two years, the length of the term of the respective members to be designated by the governor in making the appointments.

ORGANIZATION.

Within fifteen days of the date of their appointment the members shall meet at the state capitol and organize. The board shall annually elect one of its members president. Three of said members shall constitute a quorum. The board shall meet annually on the first Monday in July and at such other times as may be deemed necessary for the proper transaction of business, upon the call of the president or secretary.

COMPENSATION.

Each appointive member of the board shall receive as full compensation for his services the sum of five dollars per day for each day necessarily and actually employed in the discharge of his duties and in addition thereto his actual and necessary expenses.

ANNUAL REPORT.

The board shall, on or before the first day of November each year, make a report to the governor covering the school year ending June 30th, preceding, setting forth in detail all its official transactions.

DUTIES.

The state board of examiners shall prepare or cause to be prepared all questions for examinations for all certificates to teach in this state, and shall prescribe the rules and regulations governing the same, shall examine mark and file all answer papers for all certificates or cause the same to be done, and shall issue all certificates to teach in the public schools of this state.

CERTIFICATES.

There shall be four regular grades of certificate, issued by the board of examiners. These shall be issued only to persons of good moral character who fulfill all the requirements specified by law and by the rules and regulations of the board; viz.:

- (1) The Second Grade Elementary Certificate.
- (2) The First Grade Elementary Certificate.
- (3) The Second Grade Professional Certificate.
- (4) The First Grade Professional Certificate.

SECOND GRADE ELEMENTARY CERTIFICATE.

The second grade elementary certificate shall be granted to those persons over eighteen years of age who are found proficient in the following subjects: reading, arithmetic, language and grammar, geography, United States history, physiology and hygiene (including physical culture), civil government, pedagogy, and any one of the following named subjects: music, drawing, agriculture, nature study, domestic science, manual training. The proficiency of the applicants in spelling and writing will be determined from the papers submitted by the applicants. The second grade elementary certificate shall be valid for two years in any county in the state when recorded by the county superintendent of schools. It shall qualify the holder to teach in any grade in rural and graded schools up to and including the eighth grade and shall be renewable in the discretion of the board.

FIRST GRADE ELEMENTARY CERTIFICATES.

The first grade elementary certificate shall be granted to those persons over twenty years of age who have had at least eight months' experience in teaching and who, in addition to those subjects required for a second grade elementary certificate, are found proficient in elements of psychology and four of the following subjects of secondary grade: elementary algebra, plane geometry, physics, botany, physical geography, the elements of agriculture, nature study, manual training, domestic science and American literature. The first grade elementary certificate shall be valid for three years in any county in the state when recorded by the county superintendent of schools. It shall qualify the holder to teach in any grade in any school in the state up to and including the eighth grade and in the ninth grade in schools doing not over one year of high school work, and shall be renewable in the discretion of the board.

THE SECOND GRADE PROFESSIONAL CERTIFICATE.

The second grade professional certificate shall be granted to those persons who are at least twenty years of age and who have had at least nine months' experience in teaching, and have the qualifications necessary for a first grade elementary certificate, and who in addition are found proficient in the following subjects of advanced grade: (1) psychology, (2) the history of education, (3) the principles of education, (4) school administration, (5) methods in elementary subjects, (6) rhetoric and composition, (7) American or English literature, (8) ancient, English or American history, (9) some one natural science, (which may include agriculture) (10) higher algebra, solid geometry, manual training or domestic science. The second grade professional certificate shall legally qualify the holder to teach in any of the common, graded or high schools of the state, except in the high school department of schools doing four years of high

school work. It shall be valid for a period of five years and shall be renewable in the discretion of the board for a period of years or for life.

THE FIRST GRADE PROFESSIONAL CERTIFICATE.

The first grade professional certificate shall be granted to those persons who have substantially the equivalent of a college education. They shall have all the qualifications necessary for a second grade professional certificate, and in addition thereto, are found proficient in the following subjects: (1) a foreign language, (2) a natural science other than the one presented for the second class professional certificate, (3) ethics, logic or sociology, (4) political science, economics or domestic science, (5) any two subjects of college grade listed for the second grade professional certificate not previously offered by the applicant. The first grade professional certificate shall qualify the holder to teach in all the common, graded and high schools of the state, and shall be valid for five years or for life.

SPECIAL CERTIFICATES.

The board may grant special certificates authorizing the holders to teach in any of the common, graded or high schools, music, drawing, kindergarten, or primary subjects, to teachers holding at least a second grade elementary certificate. Special certificates to teach manual and industrial training, domestic science, or agriculture, in the common, graded or high schools of the state may be issued to applicants who possess qualifications equivalent to those required for a second grade professional certificate. The applicant for a special certificate must satisfy the board by examination or otherwise, of his proficiency in the subject which he is authorized to teach. Special certificates shall be valid for such a term of years as the board shall prescribe.

DIPLOMAS ACCREDITED.

The diploma granted on the completion of the four-year curriculum of Teachers' College of the University of North Dakota, shall be accredited as a First Grade Professional Certificate for two years, and after the holder has had nine months' successful experience in teaching, satisfactory evidence of which having been filed with the board, such diploma shall entitle the holder to a first grade professional certificate valid for life.

(2) The diploma from the advanced, or five-year curriculum of the State Normal Schools, or its equivalent, the two-year curriculum for high school graduates, shall be accredited as a second grade professional certificate for two years, and, after the holder has had nine months' successful experience in teaching, satisfactory evidence of which having been filed with the board, such diploma shall entitle the holder to a second grade professional certificate valid for life.

(3) The diploma from the four-year curriculum of the State Normal Schools or its equivalent, the one-year curriculum for high school graduates, shall be accredited as a professional certificate of the second grade for two years, and, after the holder has had nine months' successful experience in teaching, satisfactory evidence of which having been filed with the board, shall entitle the holder to a second grade professional certificate,

valid for five years, which certificate shall be renewable in the discretion of the board.

(3) The certificate of completion issued by the State Normal Schools to those who complete the ten-and-one-half-months' curriculum of the State Normal Schools shall entitle the holder to a second grade elementary certificate.

OTHER DIPLOMAS ACCREDITED.

Diplomas from institutions within or without the state shall be accredited, and professional certificate issued thereon, upon the following basis: (a) The Bachelor's diploma from a college of recognized standing shall be valid for a period of two years after its presentation to the board as a first grade professional certificate, provided, that the diploma implies at least two year-courses, or sixteen semester-hours, of professional preparation for teaching or, in lieu of such professional study, that the holder of the diploma has had three years of successful experience in teaching or in administering schools after receiving such diploma; and after the holder has had nine months of successful experience in teaching, after the presentation of such diploma, satisfactory evidence of such experience having been filed with the board, he shall be entitled to a first grade professional certificate which shall be valid for five years and which shall be renewed for life upon satisfactory evidence of successful experience for five years.

(b) The diploma or certificate from institutions whose curriculum is the equivalent of the four-year or five-year curriculum of the state Normal Schools shall be valid for two years as a second grade professional certificate, provided that the diploma or certificate implies at least two year-courses, or sixteen semester-hours, of professional preparation for teaching or, in lieu of such professional study, that the holder of the diploma has had three years of successful experience in teaching or in administering schools after receiving such diploma; and after the holder of such diploma has had nine months of successful experience in teaching after the presentation of such diploma, satisfactory evidence of such experience having been filed with the board, he shall be entitled to a second grade professional certificate valid for five years or for life respectively.

PERMITS.

A college graduate without experience or the required professional preparation may, for reasons satisfactory to the board, be granted a permit or probationary certificate, valid until such time as shall be set by the board for his examination in the professional subjects when he may be granted a certificate valid for a term of years or for life. Permits to teach until the next regular examination may be granted by the county superintendent of schools to any person applying at any time other than the regular examination, who can show satisfactory reasons for not attending the previous examinations and satisfactory evidence of qualification, subject to the rules and regulations of the board.

ACCREDITED WORK.

The Board of Examiners shall be authorized to accredit, under its rules and regulations, the specific marks or standings given in high schools, summer schools, normal schools, and the other institutions of this state, when upon investigation it deems such standings good evidence of proficiency in the subjects specified.

HIGH SCHOOL DIPLOMAS.

Diplomas from high schools doing four years' work, granted to graduates who have had psychology, pedagogy and two senior-review subjects shall be accredited as second grade elementary certificates; and if within two years of date of diploma the holder has had at least eight months' successful experience in teaching he shall be entitled to a first grade elementary certificate.

Provision is made for holding the examinations, for fees to defray the expenses of reading papers, for renewal and for revocation, in accordance with the fundamental positions taken by the Commission.

THE COUNTY SUPERINTENDENT'S AUTHORITY.

BESSIE M. KANE, STANLEY.

It would seem that such a negligible quantity as The County Superintendent's Authority could hardly furnish material for either a very lengthy or a very interesting discourse. However, since this was the subject assigned me, I must at least, I presume, fill the time if not with a discussion of what it is, of what it is desirable that it might be.

There is little doubt that most of the power exercised by the county superintendent is authorized by the section of the school laws that declares that he shall have "The general superintendence of the public schools of the county," that is, his powers are more implied ones than expressly delegated ones. For if we stop to examine into the expressly delegated powers we find that in nearly every case their exercise is so hampered by provisions as to become almost inoperative. In fact it would seem that the only authority that is absolute in the superintendent is that of granting or withholding a permit and that of carrying out the instructions of the superintendent of public instruction given within his authority.

Hardly another section of our school law delegating powers to the superintendent but falls far short of conferring any real authority since it does not attach any adequate penalty that assists in the enforcement of measures, with the possible exception of the one giving the superintendent authority to hold an institute or training school and oblige the teachers of the county to attend under penalty of revocation of their certificates.

For instance, the clause in our school laws empowering the county superintendent to convene the teachers of his county monthly or as he deems expedient for normal instruction and the study of methods of teaching, organizing, classifying and governing schools, practically confers no authority since the next sentence appends no greater penalty on the teacher failing to attend the convention than the forfeiture of the day's salary—a fact resulting in the teacher who might be most benefited by such convention absenting himself as the loss of the day's salary is inconsequential compared with the sacrifice it might be necessary to make to do his share in the work of the association. Most superintendents find that the teachers who lack natural professional spirit are most difficult to reach and doubtless would welcome an amendment to this section that would increase their authority.

Thus the fact is patent to every careful reader of our present school laws that the authority conferred by them is only a modicum of what it is desirable that it should be or rather that their authority does not extend to the really vital matters pertaining to our public schools.

For the purpose of discussion it will be permitted no doubt to declare the three vitally essential elements of a school to be the teacher, the school building and the equipment and then to dwell some little time on how much authority the superintendent can legally exercise over these three factors.

Under our present system of the school board employing the teacher many mistakes occur which may possibly be unavoidable but which it would seem might be remedied if each school board's list of teachers had to be approved by the county superintendent. To illustrate, every superintendent can recall instances where they have a good teacher doing excellent work but whom they wish might be transported to another locality where their particular talent could be more fully employed. Then again we all have had to contend with the school board who will hire the first applicant that they may have the matter of securing teachers safely off their minds. Not an evidence of the teacher's exact fitness for the conditions existing in that particular school required. Then again so many school boards are not conversant enough with the qualifications that mark different degrees of efficiency among teachers to be able to make a wise selection. Not long ago the president of a school board in commenting on the hiring of a certain teacher remarked, "She had one of them diplomas—that was the first one of them things I ever seed." Yet he was the most capable of a board who essayed to employ competent teachers for a school needing six teachers and doing one year high school work. It speaks well for the humility of many men in such cases that they apply to the county superintendent to find them teachers and much good work is done by superintendents assuming this as one of their duties to supply the schools of their county with competent teachers. But may we not well question if it would not result in much better school if this work were not entirely delegated to the superintendent or at least he be given the authority to approve the selection of teachers? An incident of this kind would surely then be an impossibility. In a school where three teachers were employed each being Normal graduates, the primary teacher, fell ill and was obliged to resign. She was a woman of most exceptional ability in her line and long experience. However, one member of the board who was so much of a leader in his community that he easily obtained the consent of the other two directors succeeded in having his daughter elected to the position. She was a girl from the tenth grade, barely eighteen and without a day's special training in primary work. Now surely the most unthinking person must stamp this as retrogression in the standard of that school. How the superintendent must have wished for the power to say that the standard of a trained teaching force must be maintained, but there is no authority by which he might.

The school law has happily given to the superintendent just a little authority over the second factor—the building where school is held, but not enough to successfully secure ideal school buildings since his efforts along this line could possibly be set at naught by a dilatory health officer and commissioner.

Theodore Roosevelt says, "The greatest asset of a nation is the health of its citizens," and though this opinion may be a little extreme there can be no doubt that it is one of the greatest assets and should be conserved by every means within the power of the state. This being the case and the allegation being made by learned medical men that the greater part of the ills that afflict adults are caused by conditions inimical to good health

surrounding children in school, it is of paramount importance that first of all the building be hygienic and sanitary, well lighted and ventilated. This was no doubt recognized by the framers of the law that provides school boards should consult with the county superintendent and county health officer in regard to plans whenever a new school house is to be built. The law is inadequate since a most lengthy consultation is of little avail in securing ideal buildings when no penalty attaches save the one of doubtful legal application allowing the superintendent if his recommendations are not complied with to condemn the building, providing he can get the two other officials composing the condemnation board to act in conjunction with him.

How easily and effectually ideal conditions might be secured if that law could be made to read so as the county superintendent might furnish plans and specifications from which school boards must make a selection subject to such minor change approved by the superintendent.

The third factor, equipment, comes under the superintendent's authority to a certain extent but not enough either to accomplish perfect results. True, a school board must furnish all necessary furniture, maps, charts, and apparatus, including a standard dictionary but from the very nature of things these men are not so competent to judge what is suitable in these lines as the county superintendent and yet there is no provision compelling them even to seek his advice respecting these essential features to a successful school much less his approval. How much more efficient work might be done were the apparatus and text books of a county's schools at least within the range of the superintendent's advice.

Then it would seem if the superintendent is supposed to have the general superintendence of the schools of the county it is surely advisable that the factors over which his superintendence is most potent for good should be included within the realm of his authority to a much greater extent.

It is no doubt a truism that in most counties where the public schools are most flourishing the great good accomplished is due to the fact that this official assumes a large share of authority that is it is doubtful if warrant could be found for in the code.

Then there is one more thing that has a large bearing on the county superintendent's authority or rather the exercise of it and that is the political nature of the office at present. There is no question that this official's sphere of influence would be greatly widened if the office were taken out of politics. It would seem if this officer were elected at the time of other school officers in June and his candidacy were announced by petitions not stating party affiliations of the candidate much greater independence in the exercise of present authority even might be possible.

Then let us most earnestly hope that the code commission have been cognizant of some of the desirable extensions of authority herein suggested and let us even more earnestly hope their recommendations in these respects be heeded this winter by the august body on whom we as educators so greatly depend for our opportunity to do our share in the upbuilding of our state—our legislature.

THE COMMERCIAL VALUE OF ELEMENTARY AGRICULTURE.

FREDERICK DAVIS, ADAMS COUNTY.

"Elementary agriculture." What does it embrace? Soils, a great subject in itself, feeds and feeding, breeds and breeding of plants, animals and fowls. The raising of animals and their relation to soil fertility. Plant growth. Alfalfas and clovers and their value on the farm. Diseases of plants and animals, with remedies. Fungi, how to propagate or kill them. Some of the fungi are good and others bad, you know. Weeds, how to eradicate them. Destructive bugs, moths, worms and insects of all kinds with practical suggestions for their extermination. Farm gardens and buildings, bees, fruits and flowers. Is a study of these matters of practical commercial value to the people of North Dakota and the great Northwest?

James J. Hill says, "Yes." We all of us say yes when we stop to think and we would say it more earnestly still could we realize the crowds of boys and girls leaving the farm homes for the higher schools and colleges and forgetting to come back because to do so means to them drudgery without interest or profit. It means going back to things less interesting because less understood than they can find elsewhere.

The successful farmer is the one who can make two blades of grass grow where but one grew before, who can raise two bushels of wheat where but one was raised before or who can raise an animal on stuff that before was wasted. If he does it on a small scale he'll be a successful farmer, and if he does it on a larger scale he will be a rich man too. In either event he and his work will be commercially valuable, won't they?

But, you say, let the agricultural magazines and journals educate the farmers in their profession. The boys and girls can read. What is the use of burdening an already overloaded curriculum with suggestions and scientific matters, both interesting and instructive, we must admit, along the line of farming? Why, if we put in these things something will have to be left out, and if we leave out a great many things that we are teaching today the children may never learn them. What a pity! What a pity if they never should know formal grammar or the brain racking stuff often given them as arithmetic!

North Dakota has made progress, great progress along the lines which I have indicated. Her schools with the persistence which habits of years have stamped upon them are still in the old channels. The form of instruction is and must remain largely the same, but they cannot fail to feel the enthusiastic determination on the part of the state's leaders to infuse into them the love of the greatest of the state's activities, agriculture.

"The Commercial Importance of Elementary Agriculture." It is an old story, this, of increased production due to increased knowledge and training. The value and efficiency of added knowledge results not alone in increased production, but in increased interest. Not alone in increased production and interest, but in increased confidence in and contentment with their lot on the part of our agriculturists, as compared with that of the Town Cousin.

It is quite within the province of elementary agriculture, it seems to me, to draw comparisons in the cost of the necessities of life, in the taxation, in health and in opportunities of profit, of obtaining conveniences and of the enjoyment of life between the two estates, and the balance in favor of the farm for the man or woman who is industrious, careful and painstaking. It is certainly within the province of elementary agriculture to show that *intense* farming pays. That it pays in cash as we go along and it pays in fertility of soil, a wealth more secure than money in bank.

I know of lands that a dozen years ago were selling at a hundred dollars per acre. "More than they're worth," the wiseacres said. "No man can afford to buy them. He'll never pay for them if he does." Along came a young man who had been studying the tobacco plant and was willing to work. He cheerfully paid down his eight hundred dollars, the first payment on a hundred acre farm, none of the best at that, and got busy with his team. In five years he owned the land clear of debt, the reward of superior knowledge and industry. Not only that but the land had increased in value by twenty-five hundred dollars under his management.

Here is another young man who inherits from his father a farm, clear of debt and in good condition. HE couldn't see anything of interest there. HE didn't know how to make it pay more than it was paying. HE didn't realize the almost irreparable damage he was doing to his well invested inheritance when he rented his land for cash and went away to the city "to live," as he expressed it. A few years passed and the stripped and despoiled old place was sold at a price far below what it would have brought in the beginning and all because of the failure of the young man to know and appreciate his opportunities. Now it does not seem credible to me that, properly educated from the beginning, the boy would have taken the course he did. Does it to you?

There is every reason in the world why we should see to it that the boy does know his opportunities. Text books on the subject are many and excellent. Teachers and schools are striving to advance the cause which must triumph some time.

It is not well that we should try to mould the sons to the profession of the father. If they want to be lawyers, if they want to be doctors, if they want to be painters or poets, let them. Encourage them in their efforts, for they may be a success in their choice and a failure in everything else.

It is not well, on the other hand, that we should allow the teaching to lead them away from their inheritance. Give it to them straight from the shoulder that in the Northwest the farm presents the safest and surest way to a successful life. Prove it to them by revealing its advantages. Then we shall have more and better agriculturists and the whole world will be the gainer.

DOMESTIC SCIENCE AS DEVELOPED BY BREAD MAKING CONTESTS IN THE PUBLIC SCHOOLS.

JESSIE M. HOOVER, AGRICULTURAL COLLEGE.

With the increased interest in the agricultural contests it seems advisable to encourage interest in a line of work which is no less important than the work of the previous contests. Hence contests in bread making and sewing have been introduced this year by the Extension Department of the North Dakota Agricultural College. The premiums should be arranged for by the superintendent or teacher. The local merchants or various clubs are often willing to contribute premiums. The rules governing the contests are similar to those governing the contests already established.

Bread is the staff of life and because of its very frequency on the table, three times a day and three hundred and sixty-five days in the year, it can probably add more or detract more from perfect nutrition than any other single article of food. The woman who can and does make good bread is truly a benefactor. There are various conceptions of just what constitutes good bread. Some people prefer very large loaves, which must of necessity contain live yeast plants in the center. Others prefer sour bread, and each man is apt to think that "the bread mother made" is the best, but as we cannot keep mother with us always, it is desirable for the girls, the future home makers and mothers, to learn to make the best of bread.

Explanation of the Score Card:

1. Good bread is sweet and nutty in flavor.
2. It must be light, but not too light. Large holes and coarse grain indicate that it is over light.
3. The crust should be a golden brown and even in color.
4. The crust should be intact. Cracks indicate too hot an oven, or that bread was not sufficiently light, or that the dough was too stiff.
5. The crumb should be soft and velvety and of a creamy color. It should not be hard and crumbly, and it should cut clean instead of crumbling down.
6. Large holes in bread indicate lack of kneading or too long fermentation. The holes should all be of uniform size and small.
7. Durum wheat makes a darker colored loaf than the ordinary hard spring wheat, and the dough must be softer.
8. Good bread is not sour.
9. Good bread keeps fresh several days.
10. Good bread is not doughy, but rebounds when pressed.

Suggestive Rules Governing Pupils' Bread Making Contest:

1. All pupils regularly enrolled in the public schools are eligible to take part in this contest.
2. Each contestant must bake at least twenty-five loaves of bread before making her entry.
3. Each loaf shall contain twelve ounces of flour, which is equal to

three-fourths of a pound or about two and three-fourths cups. This should make a loaf weighing about a pound. About one-half cake of yeast should be used, or one-fourth cake if a sponge is made, and sufficient water to make the dough of proper consistency (the rule is about one part of water to three parts of flour, but varies with different flour).

4. All work done on the bread entered by the pupil must be the work of the contestant.

5. The bread is to be judged according to the points given on the score card.

6. Each entry must be accompanied by the contestant's name, age, post office address and the recipe used.

7. Each contestant must accompany the entry with a list of observations made during the process of the bread making and baking.

8. Each loaf must be baked in regular pound pans, $2\frac{3}{4}$ inches by $4\frac{1}{2}$ inches by 9 inches.

SCORE CARD FOR JUDGING BREAD.

| | |
|--------------------------------|-------|
| Flavor | 35 |
| Crumb | |
| Lightness | 10 |
| Texture | 10 |
| Fineness of Grain | 5 |
| Evenness of Grain | 5 |
| Moisture | 5 |
| Color | 5 |
| Crust | |
| Color—Evenness and Shade | 5 |
| Depth | 2 |
| Texture | 3 |
| Thoroughness of Baking | 10 |
| Shape of Loaf | 5 |
| | <hr/> |
| | 100 |

SUGGESTIVE RULES FOR SEWING CONTEST.

1. All pupils regularly enrolled in the public schools are eligible to enter this contest.

2. Soft unbleached muslin 6 in. by 18 in. will be used, the strip to be cut lengthwise of the cloth.

3. Red thread must be used in making stitches.

4. The work must be the contestant's own.

5. The following stitches will be placed on the sampler: Overcasting, Half Inch Basting Stitch, Running Stitch, Back Stitch, Overhand Hem, Cat Stitch, Feather Stitch, Plain $2\frac{1}{2}$ in. Hem, Buttonhole Outlined, Buttonhole Finished.

6. The samples must be accompanied by the contestant's name, age and P. O. address.

DEPARTMENT OF

SCHOOL ADMINISTRATION

MINUTES

THURSDAY, OCTOBER 20, 2 O'CLOCK P. M.

The session was called to order by the president at the appointed time. The regular secretary being absent, Henry H. Hanson was elected secretary pro tem.

Mr. Hans Groven was elected member of the nominating committee from this section.

The regular program was then rendered.

A motion was carried directing the chair to appoint a committee of three to draw resolutions for the Department of School Administration. The chair was not ready to name the committee but would announce it later. There was considerable discussion of the question of Moral Instruction, particularly by R. S. McNish, J. P. Tandberg, and C. R. Travis.

The meeting was adjourned.

H. H. HANSON, Secretary pro tem.

DEPARTMENT OF
SCIENCE AND MATHEMATICS

MINUTES

The department was called to order at 4 o'clock p. m., in the parlor of the North West Hotel, by the vice-president.

By motion, it was decided to proceed immediately with the reading of the papers prepared for the program.

Papers were then read by H. F. Bergman, G. W. Randlett, and W. C. Stebbins as announced in the program, and M. A. Brannon read the paper prepared by A. H. Taylor.

Moved that this department hold its meeting at some other time than that of the annual meeting of the North Dakota Educational Association. The motion was generally discussed and points both in favor of and against the motion were made. Upon being put, the motion carried.

Moved that the exact time and place of the next meeting be decided by the officers for 1911. Carried.

The following officers were elected:

President—E. F. Chandler.

Vice President—G. W. Randlett.

Secretary—Clyde R. Travis.

Mr. Schrader read his paper after which the meeting was adjourned.

CLYDE R. TRAVIS, Secretary.

THE SUN'S HEAT.

F. A. SCHRADER, DEVILS LAKE HIGH SCHOOL.

The sun which is considered to be the source of all terrestrial energy, may be considered from two points of view; first, as only one of the millions of fixed stars which the telescope reveals as the chief member of our so-called solar system. Considered in the latter light the sun is the center of gravity and chief member of the system. According to the Laplacian theory it is a body which has contracted from dimensions infinitely larger than its present ones. In the course of this contraction the various bodies which comprise the system were thrown off. Until the discovery that certain members of this system have a retrograde motion, there was no serious questioning of the validity of the Laplacian hypothesis. Likewise there was no serious questioning of the Helmholtz contraction theory.

It is a very well known fact that the sun sends a great amount of heat to the earth and that this heat is conveyed by means of radiation since there is no conducting medium in the vast space between the earth and the sun. Ether only fills the vast interplanetary space. It is possible to measure the vast amount of heat which is received by the earth. Langley making investigations at the foot and summit of Mt. Whitney found that only sixty per cent of the heat or radiant energy which reached the summit of Mt. Whitney ever reached the earth's surface. It is thus easy to see that if forty per cent of the energy is absorbed in the comparatively short distance of three miles that only an infinitesimally small part of the energy which strikes the upper atmosphere of the earth ever reaches its surface. But even with this vast absorption if all the energy which reaches the earth's surface could be transformed into mechanical energy it would develop mechanical energy equal to three horse power per square yard of surface exposed. But except in very clear skied countries it cannot be very successfully applied mechanically.

Yet Physicists concede that the present mechanical energy was derived primarily from the sun. It therefore follows that the sun must have been a very important factor in the organic evolution of the earth.

The first and most important question that interests us is "Does the earth or did the earth always receive the same amount of heat from the sun?" The general theory was that the rate of changes was slow. Langley in 1904 proved that the amount of heat varied as much as 10 per cent in a very few days. But since the absorbent power of the earth's atmosphere is so great it would take an infinite number of years for the mean temperature of the earth to vary 120 degrees F. Since we have both geological and biological evidence to prove that the earth is a very old body and that it was once very much hotter than it now is.

While it is very easy to figure the radiant power of the sun it is a much harder matter to compute its temperature. Newton, assuming that radiation was proportional to the temperature computed it to be about 4,000,000 degrees F. Stefan's Law which states that the radiation of a body varies as

the fourth power of the absolute temperature, has been shown to hold good for lower temperatures. Should it hold good for higher temperatures the temperature of the sun would be about 10,000 degrees F. There seems to be no really valid reasoning as to why the law should not hold good for the higher temperatures. Zollner and Hirns computing the temperature of the interior of the sun by the surface disturbances computed it to be from 50,000 to 180,000 degrees F. There is no doubt that the interior of the sun is very much hotter than the surface, and should the atmosphere of the sun be removed we would receive vastly more heat than we now receive, and according to Langley it would appear to have a decided blue color.

With this varied disagreement as to the real temperature of the sun we must select the more probable one as the basis of our arguments. Newton's computations to say the least are very inaccurate being derived by the Aristotlean deductive method with a false premise as a start. Zollner and Hirns methods present too many uncertain features. Since Stefan's Law holds for the ordinary temperatures and we have no direct evidence that it will not hold for the higher temperatures we are justified in assuming the temperature of the sun to be about 10,000 degrees F.

Were the sun simply a radiant body with the heat capacity of water its temperature would fall 4 degrees in a year or in less than three thousand years it would become a perfectly cold body. Thus since we have very direct historical evidence that the sun has been radiating heat for more than that period it follows that its heat must be replenished in some manner.

The question at once arises how is the heat replenished? There have been three great theories advanced to explain the replenishment of solar heat, viz.: "The Combustion Theory," The Meteoric Theory and The Helmholtz Contraction Theory. The first two may be dismissed very readily, the first, because it is contrary to the law of the conservation of energy, which is assumed to be axiomatic in all science, and the second may also be readily dismissed because of the lack of planetary perturbations and other physical evidences.

The Helmholtz theory is harder to disprove since it presents so many striking and convincing points in its favor. The basis of this theory is the assumption that gravity holds good in the sun. Gravity will cause a slight fall of the particles of the sun towards its center and the impacts of these particles will produce heat. The production of this heat will be gradual since the fall is gradual. In 1854 Helmholtz in a paper before the University of Konigsburg computed that a radial contraction of one hundred feet annually would account for all the heat of the sun, assuming it to be a homogenous body. But since the sun is more dense toward the center it easily follows that his figures were too large. Any way we may look at his statements the sun is a cooling body.

In 1870 Prof. Lane of the Smithsonian Institute proved that a body whose constitution was such that it obeyed the laws of gases would contract under its own gravitation as it loses heat by radiation. Moreover, as it loses heat its volume decreases, and as its volume decreases gravity increases; also the ability to withstand the expansive forces of higher temperatures in-

creases, thus the temperature becomes greater. Lane states this as a paradox, wherein a body of gaseous constitution in a state of momentary equilibrium from its own internal heat which tends to expand it and gravity which tends to contract it will grow hotter the more heat it radiates. Lane's law fails the instant the body becomes a liquid or solid in any of its parts; and the body will then become colder. Since we know the sun to be solid in parts it follows that the sun is a cooling body. Helmholtz's explanation of the maintenance of solar heat is satisfactory from a physical point of view.

It's great weakness is that it fails to harmonize with the biological and geological evidences, which make it a mooted question as to whether or not the sun must not have some other means of maintaining its heat. By simple mathematical computations it can be shown that if the sun had contracted from infinitely greater dimensions than those which it now occupies it could not have radiated as much heat as we now receive for more than two millions of years. Yet geological and biological show a much longer period of terrestrial evolution under conditions of not greater frigidity than now. If we assume the sun to be the great source of terrestrial heat, we cannot harmonize the Helmholtz theory with our biological and geological evidences.

According to the Helmholtz theory the sun will contract to such a density that it will no longer obey even approximately the laws of gases. Some authorities assert that even now it does not obey them. When it reaches that density its temperature will fall and it will finally become dark and cold like the moon. Probably in less than 10,000,000 years, a very short period in evolutionary history there will not be enough heat received from the sun to support life upon the earth. The theory provides no way for the final escape from frigidity at a very early date unless perchance the sun should come into collision with some other body of large mass whose gravitative impact would be enough to vaporize them both. Then the earth and life would have a temporary respite from the final doom provided the disturbance did not cause annihilation.

Clearly then if we are to believe our geological and biological evidences solar heat must at least have other sources than contractions alone.

During the past few years our leading physicists have demonstrated that there are units of matter much smaller than the atom to be specific 1-1800 the mass of the hydrogen atom. It has also been demonstrated that the internal energies which the atoms possess are much greater than those which they possess from motion. Now it is at least possible that this vast intra-atomic energy which exists in the sun may be transformed into heat.

By various laboratory experiments this intra-atomic dissociation is shown in radium compounds, which are constantly throwing off smaller than atom particles known as corpuscles. By means of this corpuscular disintegration several million times more heat may be produced than by any known means.

Radium is known to be present in the sun in comparatively great quantities. If we assume that all other forms of terrestrial energy to be derived from the sun may not just as legitimately assume that the energy of terrestrial radium to be derived from the same source? If it is present in the sun have

we any valid reason to assume, that it would act any different in the sun than on the earth? It has been demonstrated that there are sufficient quantities of the substance in the sun to have caused it to have radiated off heat for a much longer period than the Helmholtz theory would allow. Also it would allow the sun to continue to radiate off heat for an almost never ending eternity.

Accepting that the heat of the sun is at least partially maintained by radio-activity, we are enabled to grant the biologist and the geologist all the time he desires for his evolutionary history and process.

To recapitulate we have shown that historical evidence shows that the sun cannot be simply a large heated mass cooling off. It cannot be simply a large furnace. The metoric theory is absurd. The Helmholtz theory accounts for the present rate of radiant energy. It is however totally inadequate to explain the amount of heat required for the evolutionary process. On the other hand it leaves the pleasant prospect of total annihilation, at a very early date. We are forced to the conclusion that tho the contraction theory will account for the present rate of radiation, the sun's heat must have at one time been maintained by some other source and the only clew that we have is "Radio Activity," the prime source of which we know to be present in the sun.

Another way of stating the facts is to say that admitting the contraction theory only, we can compute the age of the earth to a certainty, and it is insufficient for the evolutionary process. Admitting the partial at least maintaining of heat by radio activity the evolutionary process is explained. Since we assume the evolutionary evidence to be all conclusive the balance of evidence is in favor of at least the partial maintenance of solar heat by radio activity.

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HOW TO AGRICULTURALIZE THE TEACHING OF BOTANY IN THE HIGH SCHOOL AND STILL RETAIN THE ESSENTIAL PRINCIPLES OF BOTANY.

H. F. BERGMAN, AGRICULTURAL COLLEGE.

Botany is botany and whether it be taught as general, agricultural, pharmaceutical or economic botany the underlying principles are always the same. The only difference is in the materials used to show the application of these principles and even a difference of material or subject matter is by no means necessary to successfully implant the knowledge of the botanical principles which may form the foundation for the study of agriculture, pharmacy or any other subject with which botany is directly concerned.

To understand fully certain points in the study of agriculture, horticulture, pharmacy and similar subjects a foundation knowledge of botany is necessary. This foundation must be broad or general and would include only those things which are usually taught in schools under the name of general botany. We apply the names agricultural botany and pharmaceutical botany to elementary courses which are of necessity very general. This is done, it seems, for the purpose of attracting more students to such courses, or for making those already taking them feel that they are getting something which will be of practical value to them in the pursuit of their chosen work when they might not so feel if *exactly the same* things were presented under the name of general botany.

The choice of a text for agricultural botany should not be a difficult matter since almost any of the advertised texts for high school use are equally good and all have equally serious defects. Percival's "Agricultural Botany" every teacher ought to have for his use in planning or carrying out a course in agricultural botany but such a book is hardly suited to the needs of a student.

It is in fact very doubtful whether any text should be placed in the hands of a student with the intention of assigning him lessons therein which he is to study and recite upon. Sciences especially natural or biologic sciences should be essentially laboratory courses and a text should be consulted only after thorough study of the plant or its parts in the laboratory. The use of a text especially an illustrated one, should by no means be permitted during the laboratory period.

Agassiz said "Study specimens and refer to books, and not the reverse as is usually done." Text book knowledge about nature does not amount to anything; it is a very poor basis of culture." While culture is not the immediate end to be attained in a high school course of botany it is just as true, that a text-book knowledge about botany does not amount to anything. That knowledge only is ours, becomes a part of us, and can be used by us, which is a part of our experience and in botany as well as in other sciences, that experience is to be had only by study of actual specimens.

After a student or class has made a thorough laboratory study of any given thing they may then be allowed to consult a text and be in a position

to understand it. Any explanation or lecture by the instructor ought not to be given until the students have had a chance to collect all the facts possible and to form ideas from the study of the specimens themselves. It is an excellent idea to have a number of different texts and bulletins which students may consult after having learned all they can by observation and experiment.

If laboratory time cannot be arranged for the subject might as well be dropped entirely for all the benefit that may be derived from book study. In preference to doing text book work alone it would be better to use the regular class period for demonstration throughout the term, but nothing less than this should be considered and even that only as a last resource when it is found to be impossible to provide laboratory work.

No expensive material or apparatus is required to carry out a very efficient course which may be planned to run one or two terms, one semester, or a year. That the students be supplied with compound microscopes is by no means necessary nor would I consider it even desirable. The first thirty-six weeks of botany should not require microscopes at all.

Bearing in mind the fact that microscopes are not generally used outside of professional work, it is well to train students to observe with the unaided eyes or at most with an ordinary hand lens. There are so many things that may be seen in this way and so many facts that may be acquired which will be of far greater value to them later than the very limited knowledge (?) gained by superficial and faulty microscopic observation possibly can be.

Unfortunately we cannot in this state go out doors at any time during the winter and collect materials for laboratory use but a good assortment of plants, roots, stems, leaves, flowers, fruits, and seeds can be put up either in a dry state, or preserved in formalin for use during the winter. Material in formalin retains its shape and often the natural color as well, while the odor of formalin may be removed by washing for a few minutes in water.

A collection of all plant parts is necessary for study and illustration in any course of botany and if the course is taught with the idea of bringing out its application to agriculture the selection of material may be made to that end. Whatever plant or plant part may be the subject of study at any given time the material used should be taken as far as possible from familiar plants. In agricultural botany we would use field and garden plants along with native grasses and weeds, trees and shrubs. The use of "types" of plants for study, which the student never had met and possibly never will is a poor practice.

Since the study of seeds provides a logical and convenient starting place we may begin there. For our purpose the work on seeds would be more extensive than as given in the ordinary texts. Instead of studying one or two types of seeds during one or two periods a considerable amount of time would be devoted to this part of the work. Students shall learn to observe closely enough to be able to recognize all common weed seeds. Of course the structure, food content, and germination of seeds is also studied. Common farm or garden and weed seeds are used in this work. Germination tests of seeds of different kinds of varying age and under different conditions are made and a record of results kept. The amount of work that may be done on seeds is almost without limit and must be determined by

the length of time over which the course extends and the amount of other work to be covered. Many experiments on seeds may be performed to advantage. Suggestions for these may be found in various texts or laboratory manuals. Osterhout's "Experiments with Plants" is the best book for such purpose.

On roots some practical studies of absorption, food storage, propagation by roots and modification of the form as adaptations to or as the results of use for three purposes is to be recommended. Beets, turnips, rutabagas or similar vegetables, roots of corn, wheat, trees and shrubs afford an abundance of readily obtainable material for this work.

Experiments in the composition of plants, i. e. in the proportion of water, dry matter and ash are easily made and make an impression upon the mind of the student that could not be obtained by days of lecturing or text book study. Along with this some experiments in foods needed by plants should be performed. These may be set up by the instructor or by students at the beginning of the term and left in a convenient place so that the students can make their observations throughout the term or course of the experiment.

With leaves and stems a study of the work done by them as shown from experiments is invaluable in addition to the usual study of form and structure which of course should never be neglected. The students will be more interested however, in finding what work various parts of plants do and how they work. A study of sap transportation, food formation and storage and evaporation of water from the plant are the most important features here.

Flowers of corn, wheat, oats, various garden plants and weeds are desirable for the study of floral structure, pollination, fertilization and development of fruit and seed. Since the students are familiar with these plants they will be more interested in studying them and will more readily grasp the fundamental facts involved. If the student is ever to understand fully the principles upon which the breeding and selection of wheat, corn or fruits, and in fact plant breeding in general, is based he must first understand the structure of the flower, the function of the various parts of it, the purpose of the pollen and manner of its transfer, the effect of pollination on the development of the fruit and seed, and this understanding will never be complete and definite except by actual study of specimens themselves.

The development of fruit and seeds, their purpose in nature, their methods of dissemination, the effect of such dispersal on the abundance of weeds and finally methods of control are all things that would come naturally from the study of fruits and seeds. The analysis of samples of farm or garden seeds and the detection and separation of weed seeds or other impurities is a good thing to practice on at times during the term.

Before the close of the term or year study may be made of some of the more common diseases of field and garden crops, not so much a microscopic as a macroscopic study to familiarize the student with the gross appearance of the disease which will enable him to recognize it and detect its presence in the field. The way in which the disease is carried from one plant to another or how it persists from year to year is to be con-

sidered. Methods of control would naturally follow after a thorough study of the appearance, nutrition and reproduction of the disease.

Botany ought to be more than a mere study of forms, to make it a really valuable subject, the function of plants and their parts must be considered so that knowledge may be had of how the plant lives and works and above all attention should be paid to the ecological relations of the plant, i. e., the effect of external conditions or factors either physical or biotic which affect the growth and distribution of plants. It is with ecological and physiological relations that the farmer has most to deal and by paying attention to these as well as to study of form and structure we may make the study of botany in the high school or elsewhere strongly agricultural and at the same time retain all the principles of the subject as a pure science.

LABORATORY COURSE IN AGRICULTURE FOR SECONDARY SCHOOLS.

GORDON W. RANDLETT, AGRICULTURAL COLLEGE.

SOILS—THIRTEEN EXERCISES.

TAKING SOIL SAMPLES.

Exercise No. 1.

Apparatus: One common spade, $1\frac{1}{2}$ inch auger with shank lenthening to $3\frac{1}{2}$ or 4 feet, several one quart Mason fruit jars, Tortion balance and drying oven.

All vegetable matter should be removed from the surface with the spade. Take the surface sample from the first 6 inches with the auger—place in a jar, screw on the top and label. Clean out the hole perfectly to a depth of 18 inches and proceed to take the subsoil sample from the 18 inch to 48 inch stratum. Remove to the laboratory and weigh. Samples should also be collected of sand, clay and loam, if the preceding ones do not include such.

DETERMINATION OF TOTAL MOISTURE IN FIELD SAMPLES.

Exercise No. 2.

Apparatus: Centigrade thermometer and a 2mm sieve.

Place the samples taken in the previous exercise in the oven and dry at 100 degrees centigrade for 6 hours. Weigh and calculate the percentage of moisture on the basis of dry soil. Pulverize thoroughly, sift and expose to the air.

HYGROSCOPIC MOISTURE.

Exercise No. 3.

Apparatus: Spatula, crucibles and desiccators.

If a chemical balance is at hand, weigh 5 grams of air dried soil—if not, as small an amount as the balance used will weigh with a reasonable degree of accuracy. Heat in the oven for 6 hours, dry in desiccator and weigh. It will be noted from this experiment that the air dry sample is not a water free sample, and as all calculations should be made on the basis of water free soil it is necessary to determine hygroscopic moisture in this way once for each soil type. Corrections may then be made in other determinations.

RATE OF PERCOLATION.

Exercise No. 4.

Apparatus: Tin or galvanized iron cylinders 2 inches in diameter, $12\frac{1}{2}$ inches long with perforated bottom raised $\frac{1}{2}$ inch.

Place 10 inches of soil of the following types: sand, loam, clay in these tubes, add water to the upper end and note time required in each case for the leaching process to take place.

VOLUME-WEIGHT.

Exercise No. 5.

Apparatus: Same tubes as used in exercise No. 4 with perforated bottoms closed with paraffin or wax.

Weigh three tubes thus treated. Fill as follows: No. 1 with sand, No. 2 with clay and No. 3 with black loam, and again weigh. The weight of unit volume is termed volume weight; hence the weight in grams of one cc of soil is its volume weight. How does this differ from specific gravity?

SPECIFIC GRAVITY.

Exercise No. 6.

Apparatus: Specific gravity flasks, distilled water, chemical balance and water bath.

Fill the flask with water and boil on water bath to expel air, cool to room temperature, stopper and weigh. Pour out $\frac{1}{2}$ of the water, insert 5 grams of air dry soil, boil again to expel air from around soil particles, cool, fill with boiled distilled water, cool to room temperature and weigh. As in other specific gravity determinations the weight of the substance divided by the weight of water displaced equals specific gravity.

WATER HOLDING CAPACITY OF SOIL.

Exercise No. 7.

Apparatus: A yard or more of cheese cloth or muslin.

Place moistened cheese cloth in bottoms of 3 tubes such as used in exercise No. 4 and weigh. Fill the 3 tubes with air dry soil of the 3 types studied. Compact the samples equally by allowing tubes to drop upon the table from a height of 3 inches 3 times. Weigh and saturate. Allow all gravitational water to drip away. Weigh. Correct for hygroscopic water and compute percentage on water free basis.

CAPILLARY RISE.

Exercise No. 8.

Apparatus: Glass tubes 30 inches long, diameter $\frac{3}{4}$ inch or greater. These tubes may be made of tin or galvanized iron with a strip of transparent celluloid inserted in slit in one side. The lower end may be perforated and the perforations covered with a disk of cheese cloth or may be open with cloth tied over the open end.

Fill the tubes with the 3 types of soil and compact as before. Place the lower end in water and note rate and total height of rise in different samples for one week.

As all soil plant food must be in water solution before it may be used by the plant and as capillary water alone performs this function the importance of the last two exercises will be apparent.

COEFFICIENT OF EVAPORATION.

Exercise No. 9.

Apparatus: Three evaporimeters and one dish of same diameter. Ordinary tin basins 6 or 8 inches in diameter with perpendicular sides and bottoms perforated set inside of slightly larger pans may be used in lieu of the regular apparatus.

Line the evaporimeters with cheese cloth; fill full and smooth the surface off perfectly level. Let saturation take place from below. When complete, allow all gravitational water to leach away. Weigh. Fill the fourth dish, having exactly the same diameter with water. Weigh. Note differences in weight of all four systems at 24 or 48 hour periods for one week.

The coefficient of evaporation is the ratio of loss in No. 4 to the loss in any one of the others.

AERATION.

Exercise No. 10.

Apparatus: A burette with holder or 100 cc graduate.

Place cheese cloth over the perforations in soil tubes such as used in exercise No. 4. Place 10 inches of the sample types of air dry soil in each. Compact in the usual way. Add water from burette or graduate until a considerable quantity has leached thru. Now close the openings in lower end of tubes with paraffin or soap. Add water until it appears in free form at surface. Compute in volume percentage the amount held in interspaces previously occupied by air.

It is necessary to pass some water thru in order to expel air from around and between the particles.

EFFECT OF DRAINAGE.

Exercise No. 11.

Apparatus: Several 2 or 4 quart tin cans.

Perforate bottoms of half of these; fill all with the same kind of soil. Plant seeds of corn, wheat, clover, etc. Treat all daily with same amount of water, which amount shall be sufficient to keep the soil in the unperforated cans completely saturated. Note results for several weeks. Now close perforations with paraffin or soap and perforate bottoms of the other half. Add same amount of water for another three weeks and note results.

TRANSPIRATION.

Exercise No. 12.

Apparatus: Paraffin paper, growing plant in pot and a tin can.

(A) Encircle a thriving pot plant with paraffin paper arranged in the form of a frustrum of a cone or inverted funnel. Over this upper opening invert a dry Mason jar. Note the moisture after a few hours. As a check, arrange the same apparatus without the plant.

(B) Take up a plant, retaining all fibrous roots possible. Place it in a can of water, cut a slit in a piece of cardboard and slip it around the stem of the plant. Make all air-tight by the use of a soft wax as vaseline. Weigh the system and set it in the sunlight. Weigh daily for a week.

EVAPORATION.

Exercise No. 13.

Apparatus: A number of flower pots.

Glaze these pots with paraffin. Fill with same kind of soil to within one inch of top. Saturate. To No. 1 add one inch of soil and pack firmly. To No. 2 add one inch of loose soil and keep it loose by occasionally stirring. To No. 3 add one inch of fine road dust. To No. 4 add one inch of pul-

verized manure. Weigh and set in the sunshine and wind. Weigh daily for one week.

CROPS—THIRTEEN EXERCISES.

CORN.

Exercise No. 1.

Apparatus: Half bushel lots of the leading varieties of corn in ear obtained from any reputable seed house.

Identify the following varieties: Golden Dent, Minnesota No. 13, Rustlers White Dent, Northwestern Dent, Minnesota King, Gehu, Will's Dakota, Mercer, Triumph, Longfellow, King Phillip. Note color of kernel, color of cob, length of ear, diameter or ear depth of kernel, shape of kernel, etc.

A STUDY OF THE KERNEL.

Exercise No. 2.

Apparatus: Kernels of corn soaked since the previous day.

Notice how the depression is filled up. Cut off the small end of the kernel. Notice the triangular part under the skin on the side where the depression was. This is the germ or embryo. The remainder of the kernel except the seed coats is called the endosperm. This contains the starchy food material for the young plant. Look in the embryo for a circular part about the diameter of a pin head. This may be either the root or leaf. Make a drawing of the cross section of the end of the kernel. Split a kernel lengthwise thru the embryo with the endosperm side upward. Find the young leaves and roots.

SCORE CARD PRACTICE.

Exercise No. 3.

STUDENT'S CORN JUDGING REPORT.

1. Breed Type (General Appearance). Standard Scale33 points
 1. Uniformity of the exhibit10 points
 2. Trueness to type10 points
 3. Color in grain 5 points
 4. Color in cob 5 points
 5. Kernel uniformity 3 points
 2. Productiveness. Standard Scale52 points
 1. Shape of ear10 points
 2. Length of ear 6 points
 3. Circumference of ear 4 points
 4. Filling of tips 2 points
 5. Filling of butts 5 points
 6. Kernel shape 6 points
 7. Space between rows 6 points
 8. Space at cob 3 points
 9. Per cent to cob10 points
 3. Market and Seed Condition. Standard Scale15 points
- Apparatus: Several ears of corn for each student.

JUDGING EXERCISE.

Exercise No. 4.

Apparatus: Several ten ear samples of corn.

WHEAT.

Exercise No. 5.

Apparatus: Samples of different types and varieties shelled and in head.

Classify and identify shelled and in head: Fife, Blue Stem, Velvet Chaff and Turkey Red.

A CLOSER STUDY.

Exercise No. 6.

Same as exercise No. 5.

Note number and arrangement of spikelets, grains in spikelets, length of rachis, germ, brush ends, crease. Make longitudinal and cross sections of water soaked kernel. Locate germ, bran and endosperm.

SCORE CARD PRACTICE.

Exercise No. 7.

Apparatus: Several samples of shelled wheat.

JUDGING EXERCISES.

Exercise No. 8.

Apparatus: Several one peck samples and weighing kettle.

A STUDY OF OTHER CEREALS.

Exercise No. 9.

Oats—Panicle, color, clinging hull.

Barley—Color, clinging hull, number of rows, hull, beard.

Rye—Arrangement in spike, beard, color of grain, shape of kernel.

Flax—Arrangement of seeds in boll, manner of branching, shive, fiber.

STUDENT'S WHEAT JUDGING REPORT.

Date
 Number of sample
 Name of variety
 Name of student

EXAMINATION OF SAMPLE.

Color
 Yellowishper cent.
 Whiteper cent.
 Clear amberper cent.
 Dull amberper cent.
 Redper cent.
 Hardness
 Hard and vitreousper cent.
 Mediumper cent.
 Soft and starchy.....per cent.

| | |
|----------------------------|-----------|
| Size | |
| Large | per cent. |
| Medium | per cent. |
| Small | per cent. |
| Unsound grain | per cent. |
| Foreign matter | per cent. |
| Weight of 100 grains | grams |
| Weight per bushel | pounds |
| Viability | per cent. |

JUDGING SAMPLE

| POINTS | Standard Score | Students' Score | Corrected Score |
|-------------------------|----------------|-----------------|-----------------|
| Uniformity | 10 | | |
| Trueness to type | 10 | | |
| Color and luster | 10 | | |
| Plumpness | 5 | | |
| Size | 5 | | |
| Injured kernels | 5 | | |
| Dirt and dust | 10 | | |
| Smut, must, etc | 10 | | |
| Condition of bran | 5 | | |
| Weed seed | 10 | | |
| Weight per bushel | 10 | | |
| Seed condition | 10 | | |
| Total | 100 | | |

Commercial grade

Remarks

EXPLANATION OF POINTS.

1. Uniformity. Kernels uniform in size, shape and color. An indication of purity and variety.
2. Trueness to type. Kernels of the same character. An indication of good breeding.
3. Color and lustre. Should be bright in color and having translucency. An indication of good quality. Should be free from yellow berries and weathering. Color in winter wheat and Velvet Chaff will not be as good as that in the durum or fife wheat.
4. Plumpness. An indication of good development.
5. Size. Should be large for the variety.
6. Injured kernels. Should not be cracked or injured in threshing.
7. Dirt and dust. Dockage.
8. Smut, must, etc. Caused by poor harvesting conditions. These conditions render the wheat unfit for milling if the defect is very prevalent.
9. Condition of bran. Bran should be free from cracks and weathering. An indication of good milling conditions.
10. Weed seed. Large amounts of kinghead, cockle or other weed seed which cannot be removed in screening makes wheat unfit for milling.
11. Weight per bushel. Determined by use of the chondrometer. Standard weight 60 pounds per bushel.

12. Seed condition. Clean, large kernels for the variety, of one grade, not germinated or weathered, free from dampness, smut, injured kernels, mustiness, and having strong viability.

RULES FOR JUDGING.

1. Uniformity in color, size and shape shall be determined by examination of the sample. If more than a very small amount of admixture of different classes of wheat are found in the sample, it shall be graded as mixed wheat. Mixtures disqualify the sample as a pure variety.

2. Color and lustre. In fife, blue stem and durum the color should be bright amber. In winter wheats and velvet chaff, the color will not be as brilliant. Cut one point for every per cent of yellow berries present. The hardness is considered under this heading, as the color is an indication of hardness also. Good color and hardness indicate good milling qualities.

3. Weight per bushel. Also an indication of plumpness. Wheat should test 60 pounds per bushel. For the durum and winter wheats grown in this state, cut one point for each pound less than 62; fifes, blue stems, etc., should test 60. Cut one point for each pound below this weight.

4. Smut, must, etc. If any appreciable amount is present should disqualify the sample.

5. Large amounts of kinghead or cockle in the wheat should disqualify the sample.

6. Seed condition. Ninety-five to ninety-eight per cent of the kernels should be viable.

7. Scoured or otherwise treated wheat should be disqualified in all other classes.

STUDENT'S POTATO JUDGING REPORT.

Date
 Number of sample
 Name of variety
 Name of student

| POINTS | Standard Score | Students' Score | Corrected Score |
|------------------------|----------------|-----------------|-----------------|
| Trueness to type | 10 | | |
| Uniformity | 10 | | |
| Shape of tuber | 20 | | |
| Color | 10 | | |
| Flesh | 20 | | |
| Skin | 10 | | |
| Eyes | 10 | | |
| Size | 10 | | |
| Total | 100 | | |

EXPLANATION OF POINTS.

1. Trueness to type. Conforming to variety characteristics in variety classes, and to prevailing type in general classes.

2. Uniformity of exhibit. Uniform in shape, length and circumference.

3. Shape of tuber. Should be round, oval or long, conforming to the

typical shape of the class to which they belong. They should be smooth and free from depressions and protuberances.

4. Color. True to variety, fresh and without sunburn.

5. Flesh. A split potato should show no hollows. The flesh should be firm in texture, clear in color, free from dark rings or discoloration of any kind. It should not be woody or fibrous.

6. Skin. The skin should be smooth or russeted and without blemish.

7. Eyes. Should not be broad or deep, and few in number according to variety characteristics.

8. Size. Should not be too large or too small. A tuber of a late variety should weigh about 12 ounces, and about 8 ounces for early varieties.

RULES FOR JUDGING POTATOES.

1. Single exhibits should consist of twenty tubers.

2. Collective exhibits should consist of five tubers.

3. Exhibits having chunks of dirt adhering to the tubers, or otherwise slovenly prepared should be disqualified.

4. Three hollow potatoes should disqualify an exhibit.

5. For each square inch of blemish on the skin of the tubers a cut of one point should be made. This includes scabby potatoes and those injured in digging. If the skin peels, it shows that the tubers are not ripe and hence not of the best quality.

6. A tuber should not be more in length than two and one-fourth times its own diameter, measured at its widest part, nor should it be flattened to exceed one-fourth its diameter. Cut one point for each one-eighth inch in excess of length or flatness. A tuber may be globe-shaped.

7. Protuberances should be cut according to their shape and size. A nice smooth, medium sized potato cooks much better.

8. Prizes should never be given to extremely large tubers. They are not adapted to boiling or steaming, and are usually of poor quality. Large potatoes are usually immature. A green soggy potato is adapted to frying, but is not generally desirable. Large late potatoes on account of their immaturity are easily bruised in handling and are poor keepers.

Good quality is indicated by a slightly roughened or russeted skin. This condition also indicates maturity.

9. In variety exhibits, cut two points for every tuber of another variety present. If more than five tubers of other varieties are present, the exhibit should be disqualified. Potatoes do not mix in the hill, but always come true to the cuttings planted.

GRASSES.

Exercise No. 10.

Apparatus: Samples of plants and seeds.

Identify—timothy, brome, Kentucky blue grass, red top, Siberian millet, German millet, Hungarian millet, hog millet, Japanese millet. Note differences in leafiness of the stalk and inflorescence.

LEGUMES.

Exercise No. 11.

Apparatus: Samples of plants and seeds.

Contrast root system, leaves, flowers of those exogenous plants with grasses. Identify both plants and seeds of red clover, alsike clover, white clover and alfalfa. Look for nodules on roots.

POTATOES.

Exercise No. 12.

Apparatus: About two bushels of potatoes from the market.

Score card practice and judging exercise.

WEEDS.

Exercise No. 13.

Collect and identify as many bad weeds of the neighborhood as possible. Classify as to method of propagation, by seed, by perennial roots, by underground stem, poisonous damage to grain tainting of milk, etc.

DAIRYING—TWO EXERCISES.

TEST FOR BUTTER FAT.

Exercise No. 1.

Apparatus: Babcock tester, milk bottles, acid measure, pipette, sulphuric acid and samples of milk.

Test samples from individual cows. Compute pounds of butter. Compute profit or loss on individual cows and herds in the neighborhood.

EFFECT OF PASTEURIZATION.

Exercise No. 2.

Apparatus: Test tubes, absorbent cotton.

Pasteurize a sample by heating to 155 degrees Fahrenheit for 20 minutes and retain in sterilized test tube stopped with absorbent cotton. In test tube No. 2 also sterilized, place a sample of non-pasteurized milk. In test tube No. 3, non-sterilized, place a sample of pasteurized milk. Rinse test tube No. 4 in sour milk, fill with a sample of pasteurized milk. Place them all under similar conditions—leave untouched for one week. Now open and taste of the samples.

FARM MANAGEMENT—THREE EXERCISES.

ROTATION PLAN.

Exercise No. 1.

Apparatus: Sheets of drawing paper and ordinary drawing utensils.

Lay off 160, 320 or 640 acre farm into fields and show suitable 4, 5 or 6 year crop rotations.

FARMSTEAD PLAN.

Exercise No. 2.

Apparatus: Same as Exercise No. 1.

Lay off farmstead showing location of all necessary buildings, yards, drives, walks, paddocks, wells, trees, shrubs, lawns, gardens, etc.

BARN PLANS.

Exercise No. 3.

Apparatus: Same as Exercise No. 1.

Draft plan for principal barn suitable on this farm.

FIELD WORK—FOUR EXERCISES.

DEPTH OF PLANTING.

Exercise No. 1.

Apparatus: Ordinary garden utensils—hoes, rakes, etc.

Have a plot of ground prepared by good plowing, thorough discing and harrowing. Plant seeds of wheat, corn, flax and clover at $\frac{1}{2}$, 1, $1\frac{1}{2}$, 2, 3, 4 and 5 inches. Note time of appearance of young plants, color and general vigor. Study root system.

EFFECT OF FERTILIZATION.

Exercise No. 2.

Apparatus: Load of manure, seeds of wheat, barley, corn, clover, etc.

Prepare two plots of equal size for each crop. In addition to the thorough cultivation add to one a liberal dressing of well rotted barnyard manure. Plant a fertilized and an unfertilized plot to each of these crops and note all results during the summer. Harvest and weigh crops in the fall.

This experiment may be carried further by the use of some form of nitrogen, potash, or phosphoras as commercial fertilizers used singly and in the various combinations.

EFFECTS OF CULTIVATION.

Exercise No. 3.

Give two plots about 40 feet square equal preparation. Plant both to corn. Cultivate one thoroughly during the growing season. Neglect the second entirely, or cultivate very poorly once or twice. Note differences in result and explain. Should the season be a dry one, make moisture determinations in September.

EAR TO ROW METHOD OF CORN BREEDING.

Exercise No. 4.

Apparatus: Ten typical ears of corn of some standard variety.

Number the ears from one to ten and attach number cards to the ears. Shell one half of each ear and place the kernels in a bag with corresponding numbers. Prepare plot of ground sufficiently long that the kernels from the half ear may be planted in a single row. Plant kernels from ear No. 1 in row No. 1—from ear No. 2 in row No. 2 and so on. Place in safe keeping the residue of ears. Cultivate the growing corn thor-

oughly. In fall note differences in date of maturity, height of stalk, leafiness of stalk, height of ear, etc., and especially yield of grain per acre. This should be done by first drying the corn thoroughly, and then weighing it. This experiment is almost certain to give very striking results. Do not save seed from the corn thus grown. Why? The following year plant the residue of the high yielding ears. De-tassel alternate rows and save seed from de-tasselled stalks only. Why?

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PHYSICAL GEOGRAPHY IN THE HIGH SCHOOL

PRIN. W. C. STEBBINS, GRAND FORKS HIGH SCHOOL.

One of the chief objects of education is (if I may be allowed the expression) to put the individual in tune with his surroundings. Now one of the most important things with which the individual comes in contact is "Mother Earth." Earth science is very close to the lives of all of us, whether we consider the earth as the source from which we draw our sustenance, our comforts and our wealth, or as a final receptacle for our physical remains.

We study the earth from the viewpoint of the doings of man; cities, industries, peoples, governments; but we neglect in a large measure earth science itself, or give to it a place of minor importance.

A glance at the report of our High School Inspector is sufficient to show that physical geography holds an apparently prominent place in the schools of North Dakota. It would seem that we are awake to the importance of the subject and the opportunities which it offers for the training of useful citizens. But the length of time usually given to the subject, one half year, is inadequate and the equipment is insufficient to make the subject a really profitable one for those students who pursue it. It is strictly a scientific subject and needs the proper laboratory equipment in just as great a degree as physics, or chemistry, and field work as extensive as Botany or Agriculture. It should give to the students a knowledge of their surroundings, of general earth structure, and the forces of nature which are working upon the earth to produce surface, soil and climate. It should help in the study of commercial geography, history, literature, botany, zoology, chemistry, physics, geology, astronomy, meteorology, agriculture, forestry and conservation problems. It should introduce the students to laboratory methods and to habits of scientific reasoning. And last but not least, it should be made intensely interesting to the student.

Time will prevent the consideration of many of these points. The study should introduce to laboratory methods and scientific habits of thought. There is a very wide range of work that may be undertaken in a properly equipped geography laboratory. There are not, to my knowledge, any suitable laboratory manuals or guides on the market. Helpful suggestions may be obtained from many of them. Many of the experiments outlined in those with which I am familiar are too complicated for the average high school pupil. If the subject is placed as a first year high school subject (and I believe that it will be found most useful there) the experimental work will need to be quite simple and will need to be conducted largely as class exercises by the teacher. Many simple experiments on soils, rocks and the gases of the atmosphere may be devised.

In many parts of North Dakota field work is limited to a short time and comparatively few features. There is, however, one thing that we have always with us, the weather. We not only have it but it is usually a matter of considerable interest. A very interesting kind of field work

may be done in connection with observations of the weather. Any good alert high school student can be trained to make about as accurate a guess at the weather as the U. S. weather man. To accomplish this the laboratory must be equipped with the regular instruments for observation of the weather, barometers, thermometers, wind gauges, rain gauges. The Barograph or graphical barometer will be found very useful and interesting in this work. The study of the apparatus and methods used in weather observation will be interesting and quite as valuable as the average work done by high schools. The accurate reading of instruments and keeping of records is excellent training for further scientific investigation.

A stereopticon is a necessary part of a good geography laboratory. An abundance of material illustrating all phases of the subject may be had from dealers in slides. One who has never investigated this method of teaching geography cannot realize the wonderful possibilities, if the subject is in the hands of a good teacher. If the teacher has travelled, and there are few high school teachers now who have not, their knowledge may be used very effectively. A good substitute for the stereopticon is the ordinary stereoscope found on so many parlor tables. Supply companies now publish stereoscopic views of the subjects of their lantern slides.

A few good relief models will be found very useful in giving the pupils proper ideas of that subject. Some schools undertake very successfully the making of these models. Each class might profitably make one of them.

In some parts of the country where relief forms are very few, a geography table will be found very useful. In fact it is useful anywhere. It is a table, the top of which is a basin lined with zinc or lead, with water connections. With the table may be illustrated all of the land forms, all of the surface features due to the action of water, gorges, falls, rapids, meanders, flood plains, deltas, cliffs, undercutting, rain wash. The pupils may actually watch the formation of these features in miniature.

An intimate knowledge of the surface of the earth may be used to increase the interest in a wide range of subjects. One of the important parts of commercial geography is that which treats of the products of the soil in various parts of the earth. As an introduction to the work a study is made of the climate and soil suitable for the growth of these great commercial products.

A student of physical geography from a map of the world will be able to determine the latitude, altitude, distance from the sea and prevailing winds for any country. With these in mind he can make a very close guess as to the nature of the agricultural products of a region. The guesses may be verified or corrected by various means.

By using the pupils knowledge of the wheat producing region of the United States with his knowledge of physical geography a pupil will locate the great wheat producing regions of the world on a map without further study. A little additional study of populations will determine the nature of the commerce which will be carried on by any people, and whether it

will be profitable for the United States to subsidize a line of boats in the endeavor to build up a commerce with that particular people.

The United States in some part of it can duplicate almost any climate found in the world. Here lies a wonderful field for original investigation. The study of the conditions under which various products of soil and mill are produced, and then the transplanting of these industries to other regions suited to them is probably more closely related to agriculture than to commercial geography.

These are only a few of the ways in which a knowledge of physical geography may be used in connection with commercial geography to make the latter subject one of the best for the training of the reason and judgment.

The student of history who does not know the physical geography of the country which he is studying is at best getting a superficial knowledge. He is certainly not getting to the bottom of his subject, for at the very basis of the history of a region, the predominant factor of that history, is the physical geography of that region. The earth does not get due credit in historical accounts. As a preparation for work in history the student should know the influence of soil and climate, of surface, of altitude upon mankind. Then he should study the geography of the country under consideration; what it is capable of producing in the way of agricultural commodities, animals and man, and in many cases he will have a key which will tell him much about why this people did thus and so.

Possibly some of us have gotten the idea, no matter how, that the best civilizations or earliest civilizations, grew up in valleys blessed by nature, so that living came easy to man. I doubt the accuracy of that idea, it does not tally with facts either as to ancient civilizations or modern civilizations. To live in the valley of the Nile or along the Tigris and Euphrates required severe toil in ancient as well as in modern times. Civilizations grew there because men had to work hard enough to make them think and plan and scheme.

Nothing can be more interesting in the study of the history of our own country, than the tracing of the influence of geography upon exploration, settlement, wars and politics. Many little points may be brought out which will add zest and interest to the work.

I do not mean by what I have said that geography is all of history but that it is a very important factor in the producing of history.

Finally in closing this brief paper allow me to say that in this time of demand for the practical in education, when the cultural subject seems in danger of being swept away by the vocational subject, we may safely tie to the subject of physical geography as one which may be justified from either a cultural or vocational standpoint, one which is broad enough for cranks on both sides to stand upon without quarreling. Moreover, it would be difficult to find a subject which touches us more intimately, or which can be put to a more varied use in correlation with other branches, both cultural and vocational, or which will bring more of pleasure to the life of the person who has become familiar with it.

TO WHAT EXTENT IS THE ELIMINATION OF MATHEMATICS IN THE TEACHING OF PHYSICS ADVISABLE?

A. H. TAYLOR, UNIVERSITY.

It may be taken for granted that the elimination of mathematical methods in the more advanced work in physics is impossible. Mere word reasoning, without the intelligent use of symbols, is far too cumbersome, too futile, in the higher physics, in theoretical chemistry, and in engineering, as well as in other sciences such as geology and astronomy. Indeed, the student may not pursue to his own greatest benefit any course beyond the most elementary first course of the university without the aid of trigonometry, analytic geometry and the calculus.

There are those who so teach this work that the student carries away with him only the dry mathematical husk of the course, with the real meat of the physical problem left out. Such teachers should be criticized, not for making the subject so mathematical, but for failing to properly correlate the two phases of the subject. It has been said that no one can understand much physics without mathematics, but I venture to say that few truly appreciate and understand mathematics without physics, or at least, without physical applications of their knowledge. Physical sciences furnish the mental hooks upon which to hang the theorems of mathematics.

In regard to the first course in physics, given to non-engineering students in the universities, and in regard to the high school courses, there is room for some difference of opinion as to the amount of mathematical treatment to be used. These courses are cultural, not technical. They should aim to develop method, power of observation, and the ability to do a little analytical and synthetic reasoning. Will these objects be best attained by a generally, evasive, qualitative presentation of the subject, or by a rigid, mathematical treatment which gives the student the impression the physics consists of certain arithmetical and algebraic gymnastics. A few years ago, led on by the example of teachers in the larger city high schools, whose ambition was to have expensive quantitative apparatus in their laboratories, and special classes for their most brilliant students, we were running to the mathematical extreme; now there is an equally hysterical movement on foot in the smaller schools to entirely suppress the mathematical aspect of physics, even including the teaching of the metric system.

The latter course is the line of least resistance for the teacher who is not properly prepared in mathematics, or in physics, and this is no doubt one reason why this movement began in the smaller schools where the teachers, at least if one rates them from the salary standpoint, are not so well prepared. Both of these extremes must be avoided, but most particularly the attempt to throttle the growth of the metric system (which is inevitable because it is so logical) and the idea of relegating physics into the kindergarten by stripping it of all that makes for quick, alert, keen reasoning. If physics is not a fit subject for the high school, or if we

cannot procure a sufficient number of properly prepared teachers in this subject, or if we cannot afford to equip the necessary laboratories, it should be cut out of the high school curriculum, and chemistry or geology substituted. The elementary phases of these sciences are far easier to present. But it must be remembered that physics is broader, more fundamental, and more necessary to the subsequent development of these and other sciences. It should therefore not be given up lightly. However, if it is to be retained, it must be taught as physics, and not modified, made easy, and expurgated to a mere semblance of an exact, logical science.

I do not believe that a modicum of mathematics, meaning a little geometry and algebra, will make the subject any the less interesting if it is properly presented. The teacher who has to take his physics problems out of the back of the book instead of from the practical experiences of his pupils, has not enough originality to be in the business of teaching. The problems are pretty hard, yes. But is that any reason why they should be entirely eliminated? Should we not seek to make physics more interesting rather than easier?

In the class room, to illustrate points in the text, the experiments of the teacher should be largely qualitative; but in the laboratory a certain number, say one-third, of the experiments performed by the student ought to be quantitative. If the school boards could be persuaded that the science teacher ought to be given time to construct some of the simpler pieces of apparatus, it would be an economy for them in the end. Many of our universities give in their summer sessions courses in physical manipulation, which are very helpful to science teachers. The University of N. D. having recently established a Dept. of the University Mechanician, or Instrument Maker, would be in a position to offer such a course, if there is any demand for it.

There is one class of students who ought to be encouraged to delve as deeply into the mathematical side of high school physics as they are able to do so. These are students who show a decided preference for practical problems, and who are hoping some time to attend a technical school or the Engineering College of some university. With the others we should try to strike a median position, offsetting the difficulty of the subject by its unusual interest.

DEPARTMENT OF
HISTORY, CIVICS AND SOCIAL SCIENCES

Bismarck, N. D., Oct. 18th, 1910.

The department of history, civics and social sciences of the N. D. E. A. was called to order by the President, R. M. Black of Wahpeton.

There being no quorum present, and the same condition existing in the department of musical education, the musical people invited the history people to meet with them and thus both departments be able to benefit by the program presented.

The history department furnished the following numbers:

President's address—R. M. Black.

Address, "The Food Supply of the Mandans."—O. G. Libby, State University.

After listening to the rest of the program, a motion was entertained that the department of history do adjourn for the business meeting to such a time and place during the three days before us, as the President may designate; said time and place to be announced from the platform at the general session.

The adjourned meeting was called and held in the senate chamber on Thursday afternoon at 5 o'clock of Oct. 20th, and the following business transacted: A bill for \$4.00 for two years' dues to the State Historical Society was read. A motion was made and seconded that this bill be allowed. The motion was carried.

There being no other incidental business, the following officers were duly nominated and elected for the ensuing year:

President—Dr. Wallace N. Stearns, State University.

Vice President—Prof. Trimble, Agricultural College.

Secy. Treas.—Bertha R. Palmer, Rugby, N. D.

A motion was entertained that the appointment of the chairman of the committee upon Biography, Travel and Adventure, and Indian Myths be left to the new president of the association. This motion was carried.

A discussion arose as to the time and place of the next meeting, whether, we as a department should continue to meet at the time of the general association or follow the example of the department of science and mathematics and meet at some time and place other than the general association.

A motion was entertained that this matter be left to the new executive committee. The motion was carried. Meeting adjourned.

BERTHA R. PALMER, Secretary.

On Nov. 2 the president appointed the following chairmen of committees:

Indian Myths—Dr. O. G. Libby, Grand Forks.

Biography—Professor R. M. Black, Wahpeton.

Travel and Adventure—Professor W. J. Trimble, Fargo.

Civics—Professor Laab, Grand Forks.

Local History—Supt. Minnie J. Neilson, Valley City.

AN OPPORTUNITY.

R. M. BLACK, WAHPETON.

History is no longer considered a mere record of the past, but rather as the recorded life of a people. The old "fife and drum" method of writing history has given way to one which regards the motives and the ideals of the people.

The new writing of history encouraged better teaching of history, and a higher appreciation of its educational and economic value. We have no fears lest history fail to answer in no uncertain terms the challenge of its right to a prominent place in the curricula of all our schools. In an intensely practical age we may be led to demand that all subjects taught in the schools shall directly aid the future citizen in making a living, but we can never afford to forget that the far more important work is to aid him in making a life.

History deals with life. The one who is seeking subjects of highly cultural value finds in history the introduction to the storehouses of the world's culture. The one who demands practical training will find the study of history in its attempt to get at the purposes and thought of men one of the most helpful studies to prepare him for meeting and measuring his fellow-men in the commercial and social activities of life. In the study of history we weigh circumstances and test authority in our endeavor to understand the motives and acts of the people of history. History study widens experience and affords opportunity for relationships with the past. "Wide vision and long reach" are factors in the making of a large man, and he can truthfully say, "I am a part of all I have met."

Yet with this intrinsic value history hardly holds the high esteem to which it is properly entitled. The attitude toward history of the pupils who present themselves for registration in our higher schools and institutions, and the dread of the examination by those who are to teach, proves to us that our presentation of elementary history can be greatly improved in method and matter. The subject seems to lack interest and vitality.

The memorizing of dates in history is a bugbear to many. Dates are abundant, and most texts present a multitude of them. A few dates are necessary to fix our narrative to the great scroll of time, but only about twenty-five of the important dates of American history are essential. These should be well chosen and thoroughly memorized, then from these, other events can be located with sufficient accuracy.

The facts of history are dry if they stand out as isolated facts. Even if given in their relations to other facts they may still be so presented as to seem as dry as Sahara dust. The story form may be used and no sacrifice of historical accuracy need result. There is a gossip "streak" in every one and if well directed it may be employed as a useful aid in acquiring and imparting knowledge. Who is so indifferent that he is not interested in what some one else has done and his motive for doing it? This is handling history in the making, and history already made need not lose its human interest.

The lack of visualization robs many a student of his interest in history. Failing to see the human element, the vital touch that makes him realize that he is dealing with people who lived and worked and had ambitions as he himself now lives and works and cherishes ambitions, he feels he is studying dead matter, or at least events that occurred so long ago that it presents a difficult task to show him that they have any relation to the life and times with which he is acquainted.

It is the duty of the teacher to aid the student of history to overcome these difficulties and make up these deficiencies. Doubtless, there are many helpful means which a resourceful teacher would employ. Keeping informed on current events and the great movements of the times will help the student see that history is a continuous stream, and get him in touch with history in the making. Everything that tends to correlate life in the past with life in the present helps visualize and vitalize history.

One great source of help which no teacher can afford to leave unused is found in our own state and local history. A learned gentleman from one of the older eastern states once said, "North Dakota has no history. It is too young." Without attempting an outline a brief retrospect of North Dakota's past and its interpretation may afford a reply to this statement.

When the human race was young, perhaps even earlier than its infancy, the forces of nature took from the wealth of this northland vast quantities of its soil to build the lower Mississippi valley, leaving for us the magnificent badlands, and the ice age ground from its massive mill the rich soil of the valley and the plain.

The migrations of great nations in the western hemisphere located on its broad expanse some of the representatives of a mighty people just emerging from the infancy of civilization. Fierce rivalries were fought out here before the white man came.

Explorers found here a land of promise. The intrepid Lewis and Clarke pushed back the curtains of uncertainty and let the world look in. The ox-cart of the fur trader and the van guard of the army brought civilization to its border. The far ripples of commotion caused by the Civil War spent themselves on its eastern part, and were followed by the settler and the iron horse. The first railroad in this part of the territory, sanctioned by Congress, won a reputation on the curb of New York city and the influence of its fiasco reached the great world metropolis across the sea. The next great railroad system was built by a master-mind and its eager rush for the Pacific made the greatest pace of the times in railway building. Its capital city was named for the Iron Chancellor with his express approval. The gallant Custer carried civilization from its stopping place on the Missouri to the Yellowstone and the Big Horn, and Dakota came into the possession of the race that could use and appreciate it. Settlers from the older states, from Canada, and from the populous states of Europe met on these fertile prairies to found new homes in this great new country.

The myths and legends of 3000 years ago may still influence our language and our sentiments and make us better men and women, but the prairies and streams of Dakota are charged with memories of two races from whom we enjoy our heritage of to-day. While we drink from the

perennial springs of the historic past of the old world we may also draw inspiration from the annals of the new homeland.

Has North Dakota no history? It is the record of achievement and success of the common people following the traditions and the deeds of active and interesting red men. We have not had men to whom gilded monuments have been builded so high that we have forgotten the common people. Nevertheless her statesmen have laid the foundation and builded a state which has undisputed right to her proud position in the galaxy of commonwealths. Her statesmen may be charged with wishing their own way, and even accused with accomplishing their purposes by the use of "deals" and combines. Perhaps some schemes might be unearthed. Even so, her broad sweep of prairies, her majestic rivers, her great resources have moved her people to big things. Her record is worthy of study, and its lessons will reward any who may wish to search its written literature or go out into the larger unwritten pages of its past.

This is not intended as an encomium on North Dakota but is spoken in the desire to help those who teach history to appreciate the fact that a great field of opportunity lies right at our door. It is not enough that we teach history as given by the historians, but we can present history as life, a vital part of the larger, fuller life that is the heritage of each and all.

INTERESTING PUPILS IN LOCAL HISTORY.

MINNIE J. NIELSON, VALLEY CITY.

Mr. President and Members of the History Department:

When your president asked me to present this subject I told him I would not give a formal paper but simply tell you what we are trying to do in Barnes county to interest the school children in preserving the local history.

It is not necessary before a group of history teachers to emphasize the necessity of interesting your pupils in history, but it may be necessary to emphasize the need of interesting your pupils in *local history*.

The local history of North Dakota, that is the history of the early settlement, the early adventures, and pioneer experiences is unwritten. The only way this may be obtained is from the early settlers. These people of pioneer days are passing away more rapidly than we realize, so if this history is to be preserved it behooves us to obtain it from them before it is too late.

In our county we have made a start. We are encouraging, as the other county superintendents are thruout the state, the value to be derived from the eighth grade graduation exercises. Instead of the teacher simply handing the child his diploma when he has completed the work laid out in the State Course of Study, we try to make this event the occasion of a rural jubilee, when the fathers and the mothers and the brothers and the sisters and the aunts all come together to rejoice with the boys and girls that something has been accomplished, something has been achieved, that he or she has reached the first mile stone in life. I doubt if in all the other graduations he may have later, whether from college or university, he will ever experience the same thrills of delight or stand on as high a pinnacle of satisfaction as that reached on his first "*graduation*." Of course since he is to graduate he must needs appear upon the platform and perform. He must have a "graduating essay," so we have used this occasion as a means of interesting the pupils in local history. Last spring I had the pleasure of presenting the diplomas at fifteen rural school "commencements" and at nearly every one of these exercises some one of the graduating class took as his theme some phase of local history. Several wrote upon the "Early Settlement of the Township." So many interesting facts and much valuable information were brought out. O, how these children worked upon their essays (so did their parents) in collecting material. The children "worked the whole family" and we were glad of it. The "early days" were well raked over during the preparation of these stories. In this way we succeeded in collecting the early history of several of our townships. We are going to keep on until we have the history of each of the forty-two townships in the county.

Another way in which some valuable material for history work in lower grades may, we hope, be obtained is thru our County Fair. We have a School Department and one of the premiums offered is for story work, so in the premium lists we have put for one of the subjects for compositions

"A story of Pioneer Life." Other such subjects might be brought out, too, in this way.

The plan outlined by Dr. Libby of the State Historical Society for interesting pupils in local history is a good one. I will not discuss it here as you doubtless all know the plan he suggests of the competitive essays from the various counties.

I have found that if the teacher is interested the pupil will be. It seems to me this matter of preserving the local history thru the school is an important one, and I wish some plan could be adopted for united action in this matter thruout the state.

HISTORY BELOW THE SEVENTH GRADE.

C. M. CORRELL, MAYVILLE.

One of the greatest phenomena in the educational world today is the remarkable emphasis being placed on the practical. Any subject which will not be of direct help to the pupil when he enters into his life work has little place in the curriculum of a 20th century school. Vocational education is no longer a mere fad or hobby, but is here to stay and to modify and improve the course of study, but I use the term vocational education in a broad sense. I have no sympathy with the view that the public school should bend every effort and exert all its energy in preparing the pupil to make a living as a laborer in the ranks of some trade or craft; but I believe in a vocational education which takes cognizance of the fact that the living of a life of social and civic service is the noblest vocation to which a citizen of our republic may be called. Society does not owe the man a *living* who does not believe to the depth of his soul, and who does not give practical expression to the belief, that he owes society a *life*, and the school which prepares a boy or a girl to earn a living, on the farm or in the factory or office, but which does not implant in the mind of that boy or girl high ideals of life, or make him able and willing to take his place in the ranks of the active and intelligent citizens,—such a school would be doing serious damage to the cause of vocational training.

From this point of view, then, the movement to make school work more practical would not in the least minimize the importance of history and social science, but it does bring home to us as history teachers the necessity of reshaping and constantly improving our instruction to the end that the proper practical results may show forth in the lives of the citizens of tomorrow.

While the president of this section gave me considerable latitude in handling this subject, I shall confine my remarks to the work below the 7th grade, but I shall consider not simply the subject of history, but all work that might be included under instruction in social science. In fact the criticism may be made that the work of which I shall speak is not history at all; and it is not, from the scientist's point of view, for children below the seventh grade are not ready for scientific history study, but they are in that stage of development when their plastic characters receive and retain impressions from stories told and biographies studied, which impressions, if properly made, will affect the whole future of their lives; ideals of good citizenship may be instilled; hatred of public as well as of private immorality may be developed; and in fact the seeds from which will grow all the virtues of good citizenship may be sown at this period with more chance of producing a good harvest than if sown at a later period. And if this is not history instruction, call it what you will, but give the instruction.

One of the aims of history teaching in the lower grades should be to direct and control the growth of the passion of patriotism in the lives of the children, only a small per cent of whom will receive any formal in-

struction above the grades. I said to direct this passion, for the passion is there, and will develop, but there is great danger that it will grow into a diseased and dangerous factor in the lives of too many of the future citizens. The world is moving forward toward that time of which Tennyson had a vision which he recorded in the lines:

"When the war drums throb no longer
When the battle flags are furled,
In the parliament of man,
The federation of the world."

And there is no one who so has it within her power to speed society on towards that ideal, as the teacher of history in the grades. But that result will not rapidly be brought about so long as the "war drums" and the "battle flags" are held up to the children as emblems of patriotism. A few ago a school boy defined patriotism by saying "It means killing Spaniards." years ago a school boy defined patriotism by saying "It means killing Spaniards." Miss Mead, writing in the *Journal of Education* tells of a picture appearing in a child's paper, which represented an old man showing a gun to a boy and beneath the picture were the words "A Lesson in Patriotism." The same writer makes the following criticism on the common instruction in patriotism: "The usual 'patriotic' manuals and catechisms reveal the fact that the thought of the soldiers and guns predominates in the idea of patriotism which is inculcated in them. No wonder that the boy connects this beautiful, sacred word, "patriotism" with what General Sherman called "hell," and as he sings 'The army and navy forever,' dreams of an endless future in which rivals fleets and armies are as much a matter of course as fire engines or coast guard."

The exercises used in the celebration of special days are often of such a character as to impress the idea on the youthful mind that love of country means principally the killing of fellowmen and that the Stars and Stripes is the emblem of the battle field only. Such would be the lessons taught, for example, by the following stanza quoted in the *Journal of Education* for May 26, 1910.

"I hear the fife notes shrilling and the throbbing of the drum,
I hear the yell of battle as the thunderous hoof thuds come;
I see mens' bodies falling, though their spirits never lag,
Such thrills as this run through me when I see that swaying flag."

Now, there is a thrill runs through every one of us as we join in singing martial music, or when we read of such deeds of valor as "The Charge of the Light Brigade," "Pickett's Charge of Gettysburg, the capture of Missionary Ridge, and the calm and noble heroism of the "Rock of Chickamauga," and I think stories, poems, and songs commemorating such deeds have a place in our history teaching. But let us emphasize the horror of war rather than the glory of military deeds; let us teach that while wars have been necessary in the past and, through infinite suffering and loss, have brought about good, yet society is getting beyond the stage wherein its differences must be settled by brute force. Let us show that while our

(1) "Internationalism and Patriotism," by Lucia Ames Mead in *Journal of Education*, Sept. 1, 1910.)

great civil war furnished instances of almost unparalleled heroism and devotion to the cause of our country, yet it left us a bruised and bleeding nation with almost unbearable sorrow and suffering visited upon nearly every home, its cost in men and money was appalling, and worst of all, it caused a lowering of the moral standards of our society which resulted in the pestilential plague of vice, and graft and all kinds of corruption in civic life, from which pollution we are today striving to cleanse the body politic. And above all let us teach that the flag is infinitely more than the emblem of the bloody battle field, and true allegiance to it on the part of 20th century citizens means activities more heroic, better worth while, and more difficult to perform than facing the cannon and marching to the beat of the war drum. Let us teach our pupils to revere the names of those who have "made and preserved us a nation" by offering up their lives as a sacrifice on the altar of war; but let us show them that no less to be revered are those who have presented themselves "a living sacrifice" in the cause of social and civic righteousness, scientific achievement, public health and organized charity. Those who will have control of public affairs in the next generation should be caused to thrill with admiration over the story of Jacob A. Riis and Police Commissioner Roosevelt in their wonderful work of cleaning out the slums of N. Y. and stamping out the graft and cruelty of the police stations; or over the story of the noble fight waged by Judge Ben Lindsey against the corrupt powers of politicians, for the improvement in the methods of handling juvenile offenders; or over the stories of many everyday heroes who are fighting for clean politics, purity in public and private life, and the "square deal" for all in the economic struggle of today. Let us emphasize the fact that the flag which the pupils salute floats not only over the warship and the fort; but also over the court houses and the legislative halls; and the boys who are filled with zeal to die for the flag will see that their path to heroism lies in carrying it to victory in the 20th century fight for social, civic, economic, and educational advancement. And if the mass of the citizens can be thoroughly imbued with this idea of patriotism of right living and of social and political righteousness and efficiency, and of the burden of obligation resting upon the truly patriotic citizen in time of peace, we need have no fear for the safety of the country in case of war, for those who love their country enough to unselfishly and honestly perform the duties of citizenship, will not be found wanting in case the need arise for armed protection. So long as Roman social and civic life was wholesome, and healthy and vigorous, the legions had no trouble in upholding their standards against all who would cross the border of the empire, but when corruption and vice and selfishness and licentiousness rotted away the true spirit of patriotism, then the army fell a prey to the enemies of Rome.

And these lessons of valuable service in the non-military field of activities, may be taught in even the lower grades. As Miss Mead says, "A teacher who knows how can easily make a class thrill with the story of Colonel Waring's fight with law-breakers, his cleaning New York streets, and lowering, in consequence, the death rate by 15,000. Even a small boy can see that

this is a more glorious thing to do than to leave 15000 corpses of young men upon a battle field, slain by a victorious general."

Not only should the history work in the lower grades teach this constructive, civic patriotism, but, what is a corollary to that proposition, it should socialize the pupil. That is it should cause him to realize that society of today is the result of the activities of human beings who lived in times past, and whether society is to move forward or not, and how rapidly it is to move forward, will depend, in a measure, on the part he plays as one of the units of society. History is not a dead thing, and unless our history teaching bears fruit in the lives, as well as in the intellects, of our pupils, it is valueless instruction. The Committee of Eight of the American History Association in its report on the Study of History in the Elementary Schools, has this to say on this subject: "We believe that a leading aim in history teaching is to help the child to appreciate what his fellows are doing, and to help him to intelligent, voluntary action in agreement or disagreement with them. To accomplish these results there must be continuous attention, in each of the grades, to events in the past which the pupil can understand and also to contemporary problems suited to his intelligence."

It goes without saying that no teacher can make her pupils realize their obligations to, or their responsibilities in society, who is not wide awake and alive and up to the times herself. To quote again from Miss Mead's article on "Internationalism and Patriotism." "One may teach the multiplication table admirably without knowing cube root, but one cannot teach even an eight-year-old boy what saluting the flag means unless he has a comprehension of many things beyond the child's understanding. The teacher who reads no thoughtful review of the history that is in the making, who claims to care nothing for politics, who does not vote if she is entitled to vote, may teach reading, writing, science, and arithmetic to perfection; but until she enters vitally, with as eager interest as time and strength permit, into the larger human life, she cannot inspire her instruction in any subject that she teaches the child to approach properly the greatest problems before the world today."

History instruction, in so far as it brings about the socialization of the pupils, makes for efficiency as truly as does instruction which enables the boy to become a more skillful workman in a trade, or the girl to become a neat and scientific housekeeper. And furthermore, the social efficiency which is our ideal, is not something unreal, or fanciful, or Utopian, but if realized in the lives of the citizens of the future, it will bring about not only a civic and social uplift due to the appreciation of responsibility on the part of each member of society; but it will mean dollars and cents in the pockets of the individual and in the coffers of the state. That man succeeds in business or in professional life who is most able to put himself in another's place and to see a situation from the view point of all parties concerned; who has a broad sympathy, born of knowledge, for the problems and difficulties of other groups than the one of which he is a member. The farmer is a more contented and a more successful farmer, as well as a better citizen and more intelligent voter when he has a view sufficiently broad to

reveal to him his dependence on the business man and the manufacturer as well as their dependence on him. The professional man will draw a better salary or collect fatter fees, to say nothing of his leading a more enjoyable, more contented, and more useful life, if he has an intelligent and sympathetic appreciation of the interdependence of social groups and of the nations of mankind. And in the fierce struggle for the control of the world's trade, that people will get ahead who are most able to adapt their business methods to the many varied requirements due to difference, in race, religion, customs, etc. Allow me to quote once more from the article already referred to several times: "In the present century the problems of social, industrial, and political combinations will multiply. Interdependence of people, through commerce and the investment of foreign capital will double and treble. Anglo-Saxons whose school has not trained them to put themselves sympathetically into the place of others whose race, religion, social and industrial conditions are different from their own are sure to let men trained like the Germans secure the trade which through pig-headedness they lose. German success in South American trade has been well deserved, for it has been based on understanding. If women in Brazil desire gay, colored cloths of certain dimensions, packed in bags instead of boxes, so as to be carried on mule back they get precisely those things from the Germans with bills in the language of the country, while the unimaginative English and American lose the trade by not finding out how to treat alien customers. Bitterness, rivalry, jealousy, based chiefly on ignorance, are costing in armaments and loss of trade fabulous sums annually, which only a specific kind of education can turn from utter waste to constructive purposes."

And this instruction in the science of successfully and happily living and dealing with men in society must be given to the boys and girls in the lower grades because thousands of them will take their places in the world's business life without opportunity for more advanced study. And if our history teaching would include lessons on the social, economic, educational, and religious problems and achievements of the past, as well as the political and military, together with the bearing of these achievements on the life of today, much specific and practical good would accrue to the pupil and to society.

Time forbids the consideration of other purposes of elementary history teaching, but these two—education in patriotism and the socialization of the pupil—are worthy of considerable emphasis.

As to the manner and method of obtaining these desired results, some suggestions may be in order. It is generally conceded, I suppose, that, except for possibly an elementary text and supplementary readers in the sixth grade, history below the seventh grade consists principally of stories, biographies, and exercises given on special days. With regard to this instruction I would make these statements: (1) it should be given regularly, (2) it should have unity, (3) it should cover a wider field than merely United States history; and (4) incidents and characters of social, economic and scientific importance should largely replace those of military interest.

The Committee of Eight of the American Historical Association found

that in about 60 per cent of the graded schools which they investigated, a regular place was arranged on the program of *each* grade for history instruction. In the present crowded condition of the curriculum, it may not be possible to arrange for history each day in all the grades, and especially is this hard to do in the rural school, but in view of the importance of the results desired, the subject ought to be given a regular place on the program, once or more a week. A subject that is taken up only occasionally when there is nothing else to do, or when the teacher happens to feel like it, will not impress the children as being very important.

History taught by means of a text book is usually too choppy and broken up, and in handling the subject without a text this lack of unity is likely to be more noticeable. There are unified and connected programs prepared by various authors and committees, 'I' but whether such a scheme is adopted by the whole school or not, each teacher can work out for her own school or grade a connected and unified series of stories and biographies which will hold the interest of her pupils and which will have a real pedagogical value, for children, as well as adults, like to see the connections and relations between things of which they are studying and things with which they are already familiar.

Children come to have a narrow, bigoted and provincial notion of our national life and deeds in their history instruction is confined to purely American men and events. They must be led during their progress through the grades, to see the growth of the race and to realize that they are the "heirs of the ages" and debtors to Jew and Gentile, Greek and Barbarian. The Committee of Eight says: "Our aim is to explain the America of today, its civilization, its institutions and its traditions. America cannot be understood without taking into account the history of its peoples before they crossed the Atlantic."

Nations are today as never before seeking to "turn their swords into plow shares" and war, especially international war, is coming to be a more and more remote possibility. War is destructive, and the ideal we want to implant in the lives of our pupils is that of constructive statesmanship. Let us tell them of the men who have fought and are fighting, disease, political corruption, vice, intemperance, and business dishonesty.

As history teachers let us appreciate the importance of our calling. Let us bear in mind that while the results of our work may not show primarily in better means of making a living, they ought to show forth in better lives, and after all, that is the important thing, for as Emerson says: "The true test of civilizations is not the census, nor the size of cities, nor the crops—no, but the kind of *men* the country turns out."

'I' See, Roark: Method in Education. Kemp: An Outline of Method in History. Report of the Committee of Seven on the Study of History in Schools. Report of the Committee of Eight on the Study of History in the Elementary Schools.

A LABORATORY COURSE IN CIVICS.

SUPT. JOHN C. WEST, WEBSTER.

History may be defined as that study which traces out the growth of human beings organized into a society with a government, laws, religion, and literature. Since civics conforms to this definition, we will understand the term to include both subjects. The study of the powers of our own Senate is different from the study of those of the Senate of Ancient Rome in point of time only. Hence we will employ the two terms as a matter of convenience only, to designate the divisions of the subject.

Educators have come to think of all subjects as being divided into two groups, which they are pleased to term vocational on one hand and liberal on the other. Ordinarily, we understand the liberal group to include those branches, or parts of branches, which aim to develop depth of thought and general culture for their own sake, without regard for any effect upon the earning capacity of the individual. We might better call this the appreciative group. Conversely, we have come to think of the vocational, or practical, group as endeavoring to fit the student for some profession, or at least, as being connected with that which has to do with making a living. Each may, and in many cases does, as a secondary consideration infringe upon the rights of the other. Also, since that which is vocational to the dancing master is liberal to his pupils, the designations are at best relative. History, including civics, properly comes under both headings. It is appreciative in that it aims to impart culture, and practical in that it has for one object the training of pupils for citizenship. This training borders on the technical when we apply it to that preparation to fulfill the many civic duties that commonly meet the citizen and especially the voter of today. The ability to vote intelligently upon those questions pertaining to the management of our government requires more knowledge of forms and methods of procedure than our citizens now possess. Our courses are successful only in so far as they accomplish these two aims.

From a liberal point of view, it would seem that our work should cover all those facts and happenings that we so frequently meet in our best literature and in the conversation of people of education. It is a calamity for a high school graduate to attend a lecture and miss the significance of the more common allusions to historical events. To most of us, Esau and his mess of pottage is of more importance than the nine dates, or the discussion of "The Self Denying Ordinance" called for in our recent H. S. B. examinations. The subject is too long and life too short to warrant our memorizing the effects of the occupation of the Shepherd Kings on the organization of the Egyptian army. Details are desirable, but, since we cannot master them all, let us pick out those having some bearing upon our life today.

Vocational, or practical, history, better known as civics, is an entirely different, but fully as important, subject. Here, we are aiming at a different mark and must go after it in a different manner. As a smith must be

familiar with the various processes of tempering, even tho he uses but one, so also must our citizens be familiar with the different forms of government. Given a knowledge of instances where blind devotion to demagogues on the part of the masses has wrecked fair nations, and our trained citizen will scent danger from afar when a similar set of conditions begin to appear. In the face of this, it is obvious that citizenship is a profession and requires special training.

Of late our better law schools have adopted the case system to go hand in hand with the older method of text-book and recitation. They have a laboratory course to supplement the regular work. The success with which this has met has led several of our school men to take steps toward establishing a laboratory course in civics. This term, in its widest scope, includes the use of source material, the assignment of reference reading in the library; and in civics moot courts, parliaments, legislatures, town meetings, and the like. As to source material, we find it very useful for brighter and more advanced students, but hardly profitable-for use with more than a fraction of a pupil's time. It gives the flavor and spirit of the age better than anything else, but the average student gets very little of the substance of history from such books, and we cannot afford to make our course all seasoning and no meat. The direct study of monuments and other objects of bygone days is fascinating for the advanced scholar, and in very homeopathic doses as, say one excursion to some historic locality in a term would be beneficial to a high school class. But to attempt research work outside of the graduate school is absurd, and results only in a waste of time.

Reference reading is of great value. The pupil should spend, if possible, as much as twice as much time on reference reading as he does on his texts. This is especially true of pupils of high school grade. This should include historical novels, very carefully selected, selections from classical historians, and detailed work for limited periods. This last for the reason that history in the concentrated form that it appears in the tests is more or less skeletonized, and a skeleton is not a very attractive subject. Usually the most interesting things in history are the details. Hence, let the pupil get acquainted with the details of some limited period. The teacher must exercise a great deal of gumption to get a library used right. He must make definite assignment of reference work, and must prevent certain pupils from "hogging" all the books all the time.

In the teaching of civics, where this is given as a separate subject, moot courts, legislatures, town meetings, and the like, are a most excellent element in the course. Besides teaching the pupils something about the workings of these bodies, it teaches parliamentary practice, which I consider a most important subject. It is also a good idea to take the class to the court house, where the obliging officials generally show the pupils what they can of the workings of their offices. A class may also get much of value at a trial in the district court. Those living near enough to the capital of the state have an invaluable opportunity to teach civics by the laboratory method. The teachers of today may have trouble owing to the fact that they are not themselves familiar with the different governmental bodies, and their modes of procedure. But we look forward to the time when

teachers of civics in our public schools hold the degree of L. L. B., or at least have elected work along that line. This is already required in some states, and is common in our business colleges.

Since it is a laboratory, we may mention the equipment. The disparity of material equipment in many secondary schools and colleges is so great as to be almost ludicrous. Where the student in science uses books and apparatus, the historical student should use books and other material for apparatus. For the study of history even of the most elementary sort, one must be able to examine, not only single books, but extended sets of books, papers, maps, charts, casts and models. We find no trouble in securing duplicate sets of apparatus for physics, but a false notion that one book of a kind on history is enough prevails. For a complete list of supplies for an historical laboratory, I would call your attention to an able and extended article by Prof. MacDonald of Brown University. This may be found in the History Teacher's Magazine for Dec. 1909.

I hope that I do not make the mistake of supposing that such a course with such an equipment as has been briefly described will forthwith produce historians. I make no plea for the application of the specific methods of any science to the study of history. But the student of history, like the student of science must collect, classify, and examine sources. What a course in history tempered with laboratory work will do is, not to give the pupil the intellectual power and insight into history; but it will afford an opportunity for a student to do indispensable work under the best circumstances and with effective guidance, instead of doing it, as is too often the case today, under conditions of great disadvantage. That such a course would also stir the teacher to a more telling presentation of a subject to his class, and enable him to vitalize and dignify a department which, in this country especially, is too often thought of as but little related to current human interests. And, finally, it would enable the finished product to appreciate those events of the past which are of real value, and would place him in a position where he could intelligently use and protect those rights and powers guaranteed him by our constitution.

FOOD OF THE MANDANS.

O. G. LIBBY, UNIVERSITY.

The Mandans were an important tribe in the early days on the Missouri river, but, though they still survive a shattered fragment of their former strength, they are popularly believed to have perished in the smallpox scourge of 1837. They are to be found, however, by those who care to take the trouble, and, for such as have found them in their homes, they are living much as they used to live. The Mandans are classified as a branch of the Siouan stock, but they have, in their sedentary life, a peculiarity that separates them from the rest of the stock. Indeed, they were one of the most highly civilized tribes in the Northwest, whether we consider them from the standpoint of industrial life, their religious ceremonies or their peculiar house architecture. Associated with them were a southward migrating tribe, the Hidatsa, and a northward moving tribe, the Arikara, a branch of the Pawnee. The Mandans, like the rest of the Siouan stock, appear to have come originally from the Atlantic ocean, and their whole tribal life had, therefore, undergone a profound transformation. From being coast dwellers, acquainted with the food there and building houses of materials available in that vicinity, they had to adapt themselves to the big game of the prairie country and they learned to build for protection against the northern blizzards and the devastating prairie fires,—perhaps the greatest menace to sedentary life at that period. The record of this great change in the daily life of the Mandans is to be found in their mythology, in their religious ceremonies, in the construction and arrangement of their dwellings, and in the household economy of their women. This record is, however, not so easy to read as would first appear, owing to the fact of their long and intimate association with the Hidatsa and Arikara, already referred to.

From Mandan mythology, we learn of their early contact with water fowl and a species of deer, both of which seem to have almost the place of domestic animals in their early agriculture. In one remarkable tale, tame ducks are used as dice in a game of chance between a Mandan woman living on the sea shore and a terrible, two-faced witch, the former staking her village and all its inhabitants, and the latter her own life and her magical village where she performed her wicked enchantments. The game is won by the Mandan woman, of course, but it comes about through the intelligence and love of their mistress displayed by the seven ducks used in the game. From other tales, we learn of their once living a day's journey from the sea, to which, every year, their chief medicine man goes for the beautiful rose tinted shells worn on all ceremonial dances. This journey was always made on a river, which carried the canoe swiftly to the sea. When this canoe was lost, the tribe no longer used that style of boat.

One of the most remarkable Mandan tales, which, by the way, is published by the Historical Society in Vol. III of collections for this year, recounts in considerable detail how the Mandans came into possession of

their two main sources of food, buffalo meat and corn. It is told as a story of the adventures of a young man, who marries two wives, Corn and Buffalo, and from this union comes later many features of the household economy of this tribe.

In their religion, we discover the similar evidence of their migration from the vicinity of the sea to a prairie region. The oldest and most sacred object in their religious ceremonial is the turtle, four of which, they tell us, were brought from the sea to protect the tribe during their wanderings northward. Within the body of each of these turtles, is a miniature buffalo, and these buffaloes will one day emerge to repeople the prairies for the Mandan tribe. In the ceremonies connected with rain making, a very old rain chart is used made of deer skin and having shown on it the spring migration of swans and geese. The words chanted by the chief medicine man, when the chart is displayed, are commemorative of Easter, the season of sprouting and of green things, ushered in by the westward flight of the great birds that pass overhead in flocks, calling down words of cheer to the people of the Mandan villages. In their story of creation, the first man finds himself on a vast sheet of water, walking about without knowledge of where he came from.

In the early days, whenever a buffalo was killed and cut up, a portion of the neck was cut out and thrown away on the prairie. The explanation of this as given by the old men is that when the Mandans first saw buffaloes, these animals were man-eaters and that, after a time, their special deity caught the buffalo and, as a punishment for his man-eating propensity, he was made a grain-eater and one of the chief sources of the food supply of the Mandans. But a little bit of the muscle in a fold of the neck of the buffalo, where he was accustomed to carry the bodies of the victims he afterward ate, did not fully change its nature, being still tainted with man-flesh. In memory of this supernatural change, this portion of the flesh is sacrificed to the god of the prairies.

A third evidence of the great change of location, and so of food, is to be found in the village arrangements of the Mandans. They have both winter and summer villages, the latter being the permanent and elaborate structures. Some of their summer village sites have been abandoned for over a hundred years but are still distinct in the outline of the hut rings, while winter villages leave little record on the ground occupied for many years. It is not a wild surmise from this evidence to conclude that the Mandans acquired the habit of building winter residences after their summer village habit of life has been established for a considerable number of generations. The Mandan village begins as a cluster of houses around a holy space with two holy objects in the center of the space, and opening on it, with a southward frontage, stands their church or holy house. Since the oldest recorded element in a tribe is its religion, so this holy house, with its doorway opening down stream, points us back along the road travelled by these northward moving Mandans. In their evolution of pottery, glass making, pipes and household utensils, the same conclusion may be reached. In studying the food of the Mandans, therefore, we may

reach historical conclusions of great ethnological significance and perfectly in accord with other facts already observed.

We may classify the food of the Mandans as (1) big game supplemented by fish, wild fowl, rodents, and their domestic dogs; (2) garden foods, corn, beans, squashes, sunflower seeds, wild fruits and vegetables, the most important being the Indian turnip, June berries, bull berries, plums and cherries.

Of the flesh foods of the Mandans, buffalo meat stands first, partly because of the other products of the buffalo, namely, robes, hides, articles of dress, ornament, sinews and glue for the bows and arrows, fleshers for working the hides, sacred ornaments and dress, game pieces and raw hide ropes and strings. The meat was cut into strips and beaten into thin sheets over stones covered with hides, dried in the sun and then pounded to a powder in hollows in the ground lined with hides. The bones were crushed on large stones by heavy stone hammers and the marrow fat boiled out over the fire. This fat mixed with the pounded meat formed the great export and article of trade as well as the staple article of food out of hunting season. The entrance of the buffalo, historically, into the food habits of Mandans is so far back as to find a place in their mythology. We do know, however, where, if not when, they learned to drive the buffalo into pens or corals and thus slaughter them by the hundred. This occurred some little time before they first met their hereditary enemies, the Sioux. The fact that their best hunting bows are made of elk horn and strengthened by buffalo sinews or glue, tells us plainly enough of the difficulty which confronted the early Mandans in their efforts to utilize these fierce monarchs of the prairies and to fit them into their household economy. The story of the disastrous meeting of buffaloes and the first Mandans, armed with bows and arrows fit only to kill the timid deer of the south, is told in their legend of the man-eating buffalo. It must have seemed a supernatural feat, indeed, to drive an arrow to the vitals of that huge animal, charging them like an express train. Fish have played a relatively more important part in the foods of the Mandans in early days than the buffalo. We can see this from the fact that in every community the use of the fish trap is a trade carried on by one or more families in which it descends by direct descent or is purchased out of a family by heavy payments and transferred to the control and right of another. Thus, a priestly cult developed itself, tacitly allowed to monopolize one of the important food supplies of every tribe. This survives to the present time, a well recognized remnant of an older day and pointing us backward into an unknown past. That this fishing was a very old occupation we can also be sure of from certain details always insisted upon by those who still carry on the cult in the traditional way, for instance when the fisherman enters the fish trap, he must divest himself of all clothing and anoint his body in a prescribed way in order to bring good luck to his operations. It needs no comment of mine at this season of the year to show you that such a practice could not be indigenous here. The garden foods of the Mandans are among the most interesting of the foods we are to consider. The age of their gardens can be seen from the fact that deer and geese

and ducks are given as the guardians of the gardens, pulling up the weeds and killing off the insects, recording a time antedating the entrance of the buffalo into the life of the Mandans. Corn, the chief of them all, is a southern product, in contrast to the buffalo which is of the north. It is a most interesting fact that the possibilities of a Dakota corn crop were first made known by the Mandans; they were the first people in the state to depend on a grain crop raised by themselves and they were first known outside their own region as corn growers, just as we made our first appearance in the industrial world as a wheat growing region. Mandan women prepared corn for food by roasting the young ears, or by boiling or parching the shelled corn, and when parched or dry, grinding it in a cottonwood mortar, sunk in the ground, with a pestle of ash. Parched sunflower seeds were also ground into meal. These two sorts of meal were mixed with or without fat and made into rolls or cakes, and in this form it was known as "we-be." The squashes or gourds were cut into slices and hung in festoons from the beams and rafters of the house. When dried they were boiled with beans to thicken the meat soup, though frequently forming the sole ingredient, in default of any meat in the house. The drying of the family store of buffalo and other meat and the curing of the strings or braids of corn recalls to mind the regular structures in front of every house in a Mandan village. They consisted of a two-story scaffolds supported by four or six uprights, the two stories separated by a rude floor of poles. Above this floor of poles, hung the strings of corn or meat on horizontal poles several feet above the floor. The scaffold was reached by another characteristic piece of Mandan furniture, the ladder, a cottonwood log, six or eight inches in diameter, notched deeply on one side, an excellent stairway for moccassined feet, but not practicable for us, shod as we are in stiff-soled shoes. It was the special province of the old women to watch these scaffolds and protect their stores from hungry dogs and thieving children, that prowled everywhere. It was a favorite trick of the boys to provide themselves with long, slender poles with horse hair nooses tied at the upper end. When the cold rain had driven the old women to the shelter of the houses, these boys would steal up to the scaffolds, thrust their slender poles through the loose floor overhead and noose the ears that hung in braided rows overhead. Then, with a deft twitch or two, the ears would be broken free and the young plunderers would seek some sheltered spot where they could roast and eat their stolen plunder. It was not considered good form to be too watchful of these household stores, and woe to the guardian, who, by overwatchfulness, incurred the wrath of these swarming pests of the village. The third source of food supply, the native products of prairie and woodland have some special points of interest, also. The Indian turnip, which the French call *pomme de prairie*, has an importance distinct from its connection with the Mandans. Known to all the tribes of the prairie region and to every plainsman and trapper, it has been the most important vegetable food of the whole region and is equalled only by wild rice in its food value to the greatest number of people. Indeed, it has fed a larger number in a wider area, for a longer

period of time, than any other of the native products of America. Yet, of all our present inhabitants of the state, not one in a thousand knows the plant or would recognize it when shown to them. June is the best month for gathering this turnip; it is pulled and sliced for drying and when dried and pounded to meal, it makes an excellent substitute for flour. June berries, when dried, serve for the uses of dried currents and raisins in our cooking. Bull berries are used, when dried, to flavor pemmican. Cherries, cracked on small stones into a pulpy mass, are dried and used in the same way. Plums are sometimes used in this way but are usually eaten fresh, as, indeed, are all the fruits mentioned. The younger generation have almost no knowledge of these older forms of food; it is only from an occasional old survivor of former days that I have been able to collect even this fragmentary account of Mandan food.

I have taken this subject in a somewhat broader way than, perhaps, it was originally intended. The justification for this devoting so much of your time in its presentation, I find first in the fact of its being the means of showing one phase of the historic evolution of an important tribe in our state, a tribe about which very little is known, but whose history is our history, no matter on what side of the Indian problem we range ourselves upon.

Secondly, this treatment of the subject suggests facts relative to our fauna and flora eminently worthy of study by whatever expert biologists we may have within our borders, in connection with any seminar work with advanced students it is possible to do in this state. And from the single subject of foods the inquiry might easily be extended to the medicinal plants of the Mandans, a most interesting group, the native dye stuffs, arts and crafts now almost unused and soon to be forgotten, and last, but not least important, the North Dakota variety of tobacco, for centuries raised in considerable crops and well acclimated here, whose marketable value no one has yet investigated, nor is yet able to pass an intelligent opinion upon.

Thirdly, the subject suggests a natural basis for local field work among the school children, who are always alert for concrete material to interest themselves in, material that is susceptible of serial arrangement in school museums, to show the evolution of household utensils, and methods of preparing food, clothing, etc. All normal children like to see how these processes all come about, how the animal becomes hides, meat, tents, ropes, tools, etc.,—that is vocational education, manual training or what you will, localized so as to fit immediate environment.

Lastly, I am reminded that this subject for this meeting is in line with the present effort of the Bureau of Ethnology to prepare manuals of Indian history and archaeology for each state, to form a logical basis for state histories. Actually, Mandan foods have a vital part in our federal Indian policy. The present day Indian is suffering from two principal blunders of our government, one the wanton destruction of his food supply, the buffalo, compelling him to subsist on vegetable diet, starchy foods, not adapted to his primitive household economy—ruining his health and breaking down his vitality. Second, by ordering stopped the logical and

sanitary two-season village plan of the Mandans, he has produced the frightful mortality that annually devastates these three tribes and has fixed the date for their final extinction at no great distance in the future. Here is the most vital question affecting the Indian today and here we have failed most signally to effect any permanent or genuine betterment in his condition.

DEPARTMENT OF
MUSICAL EDUCATION

MINUTES

Bismarck, N. Dak., Tuesday, Oct. 18, 1910.

The second annual meeting of the Musical department of the North Dakota Educational Association was held Tuesday, October 18th, at two o'clock P. M., at the Presbyterian church of this city.

The meeting was called together by the president, Miss Fannie C. Amidon, of Valley City.

The following program was then given:

Choice of Music Material in the Lower Grades—Rhea Runicē, Coopers-town.

How to Help Monotones and Other Backward Pupils in Music—Josephine Ellingson, Jamestown.

What Should be the Qualifications of a Supervisor of Music in a System of City Schools—W. W. George, Fargo.

Musical Appreciation in the Schools of North Dakota—Fred W. Wimberly, Jamestown.

The round table talk which followed and which was lead by Miss Fannie C. Amidon was very interesting and instructive, the chief thoughts discussed were:

1. How and by what means can musical appreciation be brought to a higher level.

2. Musicians should regard it their duty to arouse public opinion for the purpose that legislation may be had which will make the importance of music in a school equal to that of any other study.

The business meeting then followed:

Nominations of officers for the coming year were made.

The motion was made and seconded that Fred W. Wimberly be made president of the association.

Motion carried.

The motion was made and seconded that Miss Brandt of Mayville Normal be made vice president of the association.

Motion carried.

The motion was made and seconded that Miss Fannie C. Amidon of Valley City Normal be made secretary of the association.

Motion carried.

As there was no more business to be transacted, the motion was made to adjourn.

Motion carried.

THE CHOICE OF MUSICAL MATERIAL IN THE LOWER GRADES.

RHEA M. RUNICE, COOPERSTOWN.

Very often, I think, the importance of choosing good material for the lower grades is not realized. Usually this is the beginning of the musical training of the child. His taste for music is going to be created in these first few years, hence the importance of the selection of good musical material.

It has been said that the quality of our ideas corresponds with the quality of the things by which we have been influenced. Children possess musical instincts that demand recognition at the beginning, and why should they not be entitled to the best in music as well as in literature?

The development of the musical side of the child is much the same as his general mental development. As he grows, he desires more and more to express himself. The musical language may serve him in this way the same as his spoken language.

Some children are fortunate in being born into a musical family where they hear much good music. Under such circumstances they will early realize that thought is expressed in music as well as words and consequently, they learn to appreciate tone and rhythm. On the contrary, a child who hears no music at home sees no more beauty or meaning in music than in a story told to him in an unfamiliar language.

In the case of the latter, the development of the appreciation of musical tonality depends entirely upon the melodies he is given to learn in school.

The one side of music which is most universally appreciated is rhythm. There is a natural tendency in human nature to make all melody rhythmic. Most children have an unconscious appreciation of rhythm secured by their association with Mother Goose rhymes, jingles and games which make up the greater part of their lives during the first four or five years. Teachers should realize the child's musical training begins with these games and plays, and should not begin with notation, scales, or other symbols which are all confusion to him. The latter method often causes a distaste for music which is not overcome even in the upper grades. Then, too, many children grow up without their rock-a-bye songs, the Mother Goose rhymes, and games. Here, it is left to the teacher to develop the appreciation of rhythm as well as tone. Since this appreciation must be learned by experience thru feelings and not intelligence the teacher must present such material as will appeal to the understanding of the pupil.

Direct, simple and attractive music should be selected. Songs that can be dramatized, and action songs are splendid to arouse interest, but care must be taken with such as they have a tendency to loud singing, resulting in harsh tones which are most injurious to the vocal organs, and tend to make the child sing with chest tones. Of course, in selecting all musical material the voice of the child must be carefully considered. The child voice is naturally light and high and only by keeping the tone quality light, will the teacher be able to develop a clear, beautiful tonality. Giv-

ing material in accordance with the high register of the child's voice will help to keep the tone quality light. Lullaby songs are especially good for they require a soft, sweet tone.

Many humorous songs should be given. These help to make the children love the music period. Season and weather songs will also interest them. Morning and Evening songs are good to arouse aesthetic impulses.

In choosing songs for the lower grades it is well to select those which have strong rhythm.

I have heard some teachers say, "How shall we tell whether songs are really good or not?" Sometimes this is a difficult matter. A way of being sure, however, is to select songs only from well known writers who are conceded to be good. Neidlinger, Mrs. Gaynor, Patty Hill and Eleanor Smith furnish a wealth of children's songs which are most valuable in music training. Besides these we have our great composers to go to. Every lower grade teacher should own *The Modern Primer* published by Silver, Burdell & Co., Book one of the Eleanor Smith Series, published by the American Book Co., *Small Songs for Small People*, Neidlinger, *Song Stories*, Mildred and Patty Hill and Teachers' Edition, Ginn & Co. Other useful books are *Wee Wee Songs for Little Folks*, Merry Time Songs, *The Cycle of Songs* in two books published by Silver Burdell & Co., only 25c each, and *Folk Dances and Singing Games*, published by Schirmer & Co., Boston. The latter are most delightful.

Much care should be taken in the selection of special day music. Many Lincoln day, Decoration day, Easter, Christmas and other special day songs are published in magazines. Occasionally one or two of these may be good and have some educational value, but the majority of them are merely cheap jingles and it is best to beware of them. It is well to keep a good program of special day music and it does not matter if the same program is repeated each year.

For Christmas, present to the children such songs as Mendelssohn's:

"Hark The Herald Angels Sing," also the

"Luther Cradle Song," and

"Star of Bethlehem."

The children love especially well to sing "Holy Night" and this is not too difficult to be given in the first four grades. In Book II of the old edition of the Eleanor Smith Course, there are three splendid Christmas songs, which can be given in the third and fourth grades. Then there is a store of beautiful folk songs which are always good.

In the third and fourth grades the music work may, to great advantage be correlated with the geography and nature study work. When they are studying about the children of Japan give Japanese songs. When they are studying about the Indians there is a wealth of song material that they delight in, the Indian lullabys and morning songs, etc.

The teacher has a splendid opportunity to refine and elevate the child's taste, especially in the lower grades. A child who has been accustomed to singing the best music, adapted to his needs, will, in later life, drift toward good concert and operatic music and will enjoy all that is truly artistic.

HOW TO HELP MONOTONES AND OTHER BACKWARD PUPILS IN MUSIC.

JOSEPHINE ELLINGSON, JAMESTOWN.

The problem which every successful public school music director must meet and solve is how to help the monotone and others musically deficient, for I think it can safely be said that no school exists in which none such are found. Since this is so, the only thing for us to do is to learn how to eliminate them by curing the defects, as we are all aware that this can be done. If nothing is done to aid them, no singing as we understand it is possible, as undoubtedly most of us know that the monotone, as a rule, sings louder than any other member of the class, especially until they reach the fifth and sixth grade and even then if they have the courage, for that it requires. courage is certain, as they are in almost every case noticed and laughed at by the more musical pupils. In the upper grades and high school they scarcely ever cause any trouble as far as discords are concerned, as it is an impossibility to get them to sing unless they are taken separately. Thus we see that our chorus work will suffer in the upper grades unless attention is paid to the monotones in the lower grades.

It is now universally believed that a child who has a voice should be able to sing if given proper training during the early years, unless he is physically unable. For why should he not be? Does not the voice undergo the various changes in talking? Has a child ever been found in whose voice no shade of inflection could be discovered?

There is a greater variety of tones in some persons voices than in others, but I have yet to find one who speaks with a sameness of tone throughout and I have also yet to find a monotone who could not change from one degree of the scale to another. The excellence of his future work in singing depends upon his own zeal and his teacher's patience, for at times there is great need of both.

We find monotones in our classes at times who are such for the single reason that they seemingly lack energy to change from one tone to another. If we inquire into the matter we will find that these same pupils are deficient in their other studies also. In cases of this kind we must first seek improvement of the mind and then cultivation of the voice. The child's mind is seemingly in a dazed, stupefied condition. They seem to lack energy to utter a sound. If you ask them to sing with you or for you they will strike a low, hoarse breathing tone which cannot be called singing. The best way to help these would be to study and stimulate their interests by playing games in which they give you calls of various animals and try to imitate the sounds in nature, as singing is an impossibility at this stage. Boys as a rule like to whistle and this may appeal to some of them. The main course to follow, however, when dealing with children of such peculiar, dreamy nature is to keep them interested and even excited as it seems to invigorate and incite them to work and keeps them out of their listless condition.

Then we find children of nervous and excitable nature, whose tones come by leaps and bounds, they will be singing along in a low, natural key when all at once their voices trail off into an extremely high pitch without any reason whatever. Such pupils need to be cared for in a manner very different from that spoken of in the foregoing paragraph. Try to sooth them and make them feel at ease by approaching them in a very quiet manner, then ask them to sing with you very softly. There is nothing now to excite them and their tones are smooth and even.

Then we come to the monotone who loves to sing and who sings to his heart's content, having evidently no idea of what a peculiar melody he is improvising and by his bright and cheerful looks you are forced to think he enjoys it and is entirely lacking in a sense of discriminations of tones. Of these it has often been said that they could not sing as they had no voice, but this is not true, for the defect in these children is not that of the voice but of the ear. They need ear training and as the defect is so great the remedy must be simple as they would otherwise be unable to grasp it. The following exercises have been used to very good effect:

First: Have one child blindfolded and ask the remaining children to form a circle around him. One child then sings "Good morning, Johnnie," and he responds with the name of the speaker. Each one is given credit for the number of correct guesses he makes and the one who reaches the number of ten or whatever number of guesses you may have set as the limit and guesses correctly, wins. This adds interest and does not detract from its value as a means of ear training. This game may be played using whistles instead of voices. It would be advisable, however, to select only a few tones of the scale and those as far apart as possible as they are easier to detect.

Second: Bring different instruments to school such as a whistle, bell, glass, tin, etc. Sound each repeatedly until you think they may have associated the different results. Then blindfold one of them and strike one of the instruments and ask him to tell you which one he sounded.

Third: Have children indicate by raising and lowering their arms the pitch of your tone as you change from high to low. Raising them to indicate the former and lowering them to indicate the latter.

In working with monotones there is sometimes a danger of overdoing. Never allow a child to become conscious of his defect in such a way as to embarrass him. He may then cease to try. Do not allow him to understand that there is any disgrace in belonging to a special class, if such a class exists. Sometimes you are even able to make him think it an honor and he will work harder to prepare for the little concert the class is to give when he may be able to contribute a scale song or something similar alone.

During the first part of the year special work among monotones should not be undertaken too strenuously for the reason that real monotones cannot be discovered this early and if you were to undertake the work you would come to the conclusion that three-fourths of your class were monotones. This would be especially true of the little first graders whose

tiny voices have scarcely become accustomed to the speaking tone to say nothing of singing. Before beginning the special work, therefore, teach a large number of rote songs, thereby giving the child an ample chance for exercising his voice. Small children are often unable to sing because they have not been accustomed to concentrating their attention and as a result do not listen attentively enough to the melody. It is found, however, that as they grow accustomed to school work their singing improves.

In schools where the schedule is too full to allow treatment of individual cases a great deal can be done by listening. Try to select your monotones soon as possible and bring them to the front seat. Place the most musical children near them in order that they may hear the right melody clearly. Do not discourage them by forbidding them to sing but urge them to sing softly. Sometimes three or four children may be selected to sing alone, at such times place the monotone between the two better singers as he will then get the sound from two directions. He often finds it easier to imitate the voices of the children than the teachers as their voices are more like his own.

In one school the pupils were divided into three choirs. The first was composed of the best singers and sat in the rear of the room. The second was composed of the pupils of medium ability, and the third contained the monotones and sat in front. These choirs at first sang together, afterward each was called upon to sing separately. The first choir sang more often in order that the second and third might be benefitted by listening to the pure, clear tones and correct melody. Individual work in this way could be done even where time otherwise would not allow it. Calls might be given by the first choir and the second and third choir asked to imitate the sound.

In teaching a song or tones of different pitch use hand signs to indicate high and low tones, this appeals to their sense of sight, and brings them to think correctly. Ask the child to make his voice climb as your hand climbs. If he is brought to think right his attempt it will be found will always be made in the right direction, even tho he may not reach his goal at first. If you find the child you are working with unable to take your pitch drop to his tone and have him build on that. At first he may be unable to add more than one or two tones. But if a short drill is given daily he will improve greatly.

We finally come to the child who is a monotone because of physical ailment. Here only the doctor or school nurse can remedy the defect and no singing can be attempted before such treatment has taken place.

When we think of the innumerable ways in which these children must be treated and our results brought about and how slowly and carefully we must work to keep up interest we will agree I am sure that to be successful one, must have both patience and a cheerful nature. We need to think not of the gloomy present condition of the monotone but of the bright future. If the evil is corrected while the child is still young he will be able to enjoy song in its true meaning and our labor has not only enriched and brightened the child's life, but also the lives of those with whom he comes in contact. And it has done more. What would have

been a future burden to the music instructor has been eliminated and song singing may now go forward with unbounded success and although our work at times may have been both hard and discouraging we will feel more than repaid when we have been able to change what was once one of our monotones into one of our sweetest little singers. We may not receive any great tribute from the child. He may never even recognize or remember us at all in his happy successes but the question is not, "Will men honor you for your work," but "Does your work honor you?" and when we accomplish great results it is that which makes us satisfied and that which encourages us to go on with our labor for achievement makes us strong.

WHAT SHOULD BE THE QUALIFICATIONS FOR A SUPERVISOR OF MUSIC?

MARGUERITE L. BEARD, FARGO COLLEGE.

What should be the qualifications for a supervisor of music in a city system of schools? Not what qualifications one can get along without, but what qualifications a critical school board would like to see combined in the person of its music supervisor. This is our question, a much easier one to answer than the question, "Where may we find the ideal teacher?" As for that paragon—the ideal teacher—in reality, he or she does not exist, but it is the aim of all our training schools to turn out graduates who come as near as possible to the desired standard. Do not understand me to mean, however, that the training alone can make the teacher—far from it. Everybody knows cases where all the training in the world could not make a teacher or a musician. "You can't make a silk purse out of a sow's ear." Music supervisors, like poets and many other good things are born, not made. Granted, however, that the would-be teacher has certain inherent qualities, a thorough preparation for her special line of work is almost a necessity, though many have overcome a lack of sufficient preparation by hard work in the school of experience.

Not all of the qualifications which I shall name are absolutely essential, but every one is valuable. Like the preachers of old, I shall have a "Firstly" and a "Secondly" in my sermon, grouping the qualifications under two heads, each beginning with the letter P: firstly, Personality; secondly, Preparation.

Personality includes all those natural endowments without which it is almost impossible to make a success in any line of educational work.

Perhaps the first essential is a love of teaching. The girl to whom teaching is drudgery will never be a brilliant success, no matter how faithfully she may work. She will never feel that enthusiasm which is such a spur both to the teacher and to the pupil. She may pound a certain (or uncertain) amount of knowledge into unwilling heads, but she can never arouse that desire to go farther, to explore new fields, which is just as important as the actual amount of learning gained.

It is almost unnecessary to say that the supervisor must love music. She has the great responsibility of forming the child's musical mind, of arousing in him a taste for the best in music. As the guide goes before the traveller, so must the music-teacher lead her pupils into the new world of tone, and she herself must be alive to its beauties to awaken the children's interest.

Another very important qualification is that of leadership, as necessary for the teacher as for the general. A born leader has some intangible magnetism which impels others to follow whether they will or no. A magnetic teacher can do wonders with poor material. When the children love her and try to please her, the battle is half won; for only very few children are unable to learn to sing, once their interest is aroused. The

popular teacher is always neatly dressed, has an even disposition and possesses the "merry heart which maketh a cheerful countenance."

This leads naturally to the next requirement, that of tact. A supervisor must be able to get along with the superintendent and with the other teachers. In many cases she will have to deal with a superintendent who is prejudiced against music, and grudges all the time and money spent on it. Fortunately cases like this are becoming more rare than formerly, as people are coming to realize the necessity of having at the head of their schools a man developed on all sides.

Frequently the grade-teachers resent the introduction of new methods, especially if the supervisor happens to be young. A little willingness to yield in small points and a genuine attempt to get on a friendly footing with the teachers will do much toward preventing friction. Tact is necessary also in dealing with the children. They should be kept so interested that little real discipline is needed, but the teacher must know when to exercise her authority in order to command the respect of her pupils.

Clear-headedness is another valuable asset. To explain a thing convincingly, you must have a perfectly clear idea of it in your own head, and be able to express it intelligibly. It is, of course, impossible for the supervisor to do much of the actual teaching in a system comprising many schools, so she must make clear to the teachers her plan of campaign, and then make sure that they follow it. She must give special instruction to such teachers as need it, and must always be ready with advice as to how to deal with special phases of the work.

Patience is not only a virtue but a necessity for the teacher, and fortunately for many of us, it may be cultivated on apparently barren soil. No branch of study calls for more patience than does music, where the progress is often so slow and the labor so great. Most musicians are of too nervous a temperament to have much natural patience, but all can acquire it through the exercise of a little self-control.

A music-supervisor, even more than most other teachers, should have an abundance of physical strength. The work is hard enough to tax the strongest constitution, and no one should attempt it who is not able and willing to work in season and out of season.

The first of the distinctly musical endowments necessary, is a correct ear for pitch. No fault in music is so unendurable as imperfect pitch, and the teacher must be continually on the watch to detect the slightest departure from the correct intonation. Persons whose ear for pitch is defective can never be sure of singing in tune, and should never be allowed to teach others. Right here I want to make a plea for better work in ear-training in the schools, as it is a part of the course that seems to be somewhat neglected in this part of the country. Teachers say they have no time for it, but if they knew how to make proper use of it, they would find it a time-saver in the end, for it cannot help reacting favorably on the child's reading and understanding of music. As a teacher of mine used to say, "You must see with your ears and hear with your eyes to fully appreciate music."

It is desirable, though not absolutely essential, that the supervisor be a

good singer. How much easier it is to teach by example than by precept! Moreover, it seems unnatural to say to the children, "You must learn to sing," when the children can plainly see that the teacher is unable to do what she requires of them. Not that the teacher should always or often sing with the pupils, but they should look up to her as their ideal of a singer, an example worth trying to follow. Ability to sing well also gains for the teacher a certain prestige and standing in the community, which arouses interest in her work, and makes for the welfare both of the supervisor and the schools. Some supervisors have succeeded without good voices, but in such cases the executive ability must be strong to offset the lack.

Now for the second "P," Preparation. First of all, the supervisor should have at least a good high school education—more than that would be better. At least this much is necessary, that she may be on an equal intellectual footing with teachers in the other departments. Psychology, especially as applied to children, should form part of the training of every teacher. Experience in teaching in the grades is an advantage but not a necessity.

The musical part of the supervisor's training cannot be too complete. As a basis, some good system of public school music should be studied, if possible, several systems. But the teacher must learn not to depend upon any fixed method; rather should she learn to adapt herself to any method, while still keeping to the general principles which underlie all good system of school music books. What does it matter whether she teaches first the song and then the exercise, or first the exercise and then the song, so long as the children learn to sing both in the end?

Harmony, theory and musical history are very important studies. Many high schools have a course in elementary theory, which the supervisor must teach. Even in the grammar school, one must teach the rudiments of harmony, that the scholars may have an understanding of intervals and chords. In my work with advanced harmony pupils I have often been astonished at their ignorance of the most elementary facts about the scales and even the notes and rhythm. All these things should be taught in the public schools as a matter of course.

The student of theory and musical form becomes of practical use when the teacher wishes to explain the difference between the various kinds of music. A canon, for instance, becomes much more interesting when the teacher calls attention to its structure and tells something about the different kinds of canons. When a song by some famous composer is being studied, musical history comes into play, and the good teacher will tell some interesting facts about the composer's life. Thus every particle of the teacher's education becomes of some use not only to herself but also to her pupils.

The study of vocal culture, especially as applied to the child's voice, is of the utmost importance. If knowledge of this subject were more general, fewer voices would be spoiled in the public schools. Noisy shouting on the playground has a tendency to roughen the child's voice, a tendency which the wise teacher knows how to counteract by giving exercises to

develop lightness and flexibility, and by requiring always soft, sweet tones rather than a great volume of sound.

As I mentioned above, a rigorous course in ear-training and dictation is a necessity. It gives a certain confidence and familiarity with the intervals which can be gained in no other way, and is valuable, in developing the rhythmic sense.

Work in the high school requires a thorough knowledge of chorus-leading. The pupils are supposed to have gained such a knowledge of reading music that the teacher can devote all her efforts to getting the best artistic effects. The leader must know how to control a large body of singers, to keep the parts in proper balance and to bring out every shade of expression. Many high schools have glee clubs, and the supervisor must know how to meet the peculiar needs of these organizations. She must necessarily be familiar with a large amount of music for each kind of part-singing. She may sometimes be called upon to organize and direct a high-school orchestra. This work demands a knowledge of the individual instruments and their combination. Familiarity with the technique of orchestral writing is very useful.

Practical experience in teaching is a good thing to have, but many must start with very little of it. If her personality is suitable and her preparation sufficient, the teacher will soon work out her own salvation.

Have I made any impossible requirements? Do parents wish to send their children to a teacher lacking many of these qualifications? The time has passed when they made a teacher out of anybody who had no particular aptitude for anything else. What the present day requires is a teacher who is by nature adapted to the task, and who has, by careful preparation, fitted herself to teach her specialty.

MUSICAL APPRECIATION IN THE PUBLIC SCHOOLS OF NORTH DAKOTA.

FRED W. WIMBERLY, JAMESTOWN.

The above is rather a lengthy title and cannot receive full consideration within the time allotted me. The subject, too, deserves a more competent personage than the speaker; one actually engaged in the work as a musical supervisor and, consequently, in closer touch with conditions in the schools of the state. I am greatly interested in the public school system of our country and I fully appreciate the fact that it has many problems still unsolved. One of these is the introduction of musical instruction into the course of study from the kindergarten on thru the high school. With this problem I am especially concerned because I believe that if we are to develop an appreciation of musical art in this country it must come largely thru the inspiration received during school days.

The subject assigned me suggests two possible conditions: one, that music is appreciated for its educational and cultural value, the other, that it is misunderstood and regarded as having no educational value.

Let us look into the matter and see what is being done in our state along musical lines, courses offered, credits allowed, etc. Permit me to quote some figures from a paper presented by your worthy President, Miss Amidon, at the last meeting of this association. "In the northeast section of the state there are sixty-seven graded schools with twenty-three special teachers of music. In the south-eastern section there are sixty-eight schools, twenty-three of which have either a special teacher of music, or one of the grade teachers doing some work in music. In the southwestern part of the state there are twenty schools and only two teachers, while in the northwestern there are forty-seven graded schools, with five instructors in music. Why is it that there is such a seeming lack of interest in this important phase of education?" This looks as tho the people of North Dakota were unmusical and cared but little for one of the greatest of the Fine Arts, but this is not quite true. Her population is largely made up of people who are by nature very musical but who have, for various reasons, been too much engaged with other problems to develop their musical natures.

The main underlying cause for this apparent lack of musical interest appears to me to be due to the general disinterestedness of the average parent in the work of the child student; and especially is this true with reference to music. According to popular conception, music is only for the elect, those who are endowed from on high; natural born musicians. This view is erroneous and should no longer be advanced by parents and educators as a reason for the lack of musical education in the grammar and high schools. Not every one can or desires to become a professional musician, but all can become acquainted with the art and learn to appreciate it from a musical standpoint. Why is it that practically all foreigners are musical? Simply because music is a part of their national

life and is taught in the schools from the lowest grades on through the university.

Educators also fail to realize that education means far more than the acquiring of a multitude of facts, figures, rules, etc.; and have, in many cases, failed to appreciate the value of moral and cultural training. Everything tends toward vocational courses; book-keeping, manual training, etc., and musical and poetical art are crowded out as possessing no educational value. The child's mind is filled full of facts and his heart and soul are seldom, if ever, touched; his sense of expression is allowed to lie dormant; he is not taught to look for the artistic beauties of nature nor to hear her sweet harmonies, but, instead, grows up a cold and often times hard hearted man, unsympathetic and uncultured.

But there are natural causes for this lack of musical appreciation in our state and there are also signs of an awakening to a fuller appreciation of the art. Foremost among these natural causes we might take into consideration the newness of the commonwealth, the unsettled condition of the population, the lack of musical instruments in the home of the early settlers and also the fact that few of our leading artists have, until quite recently, toured the state. In other words, we have not had a musical atmosphere and we cannot hope to achieve much until such an atmosphere has been created. Can it be accomplished, you ask? Yes, and at no great expense of school funds or of the mental capacity of teachers or students and the results from the general introduction of musical study into our schools, would be most beneficial and far reaching upon the minds and characters of our youth. Plato once said, "Music is a moral law. It gives a soul to the universe, wings to the mind, flight to the imagination, a charm to sadness, gaiety and life to everything. It is the essence of order, and leads to all that is good, just and beautiful, of which it is the invisible, but nevertheless dazzling, passionate and eternal form." What would he say could he but hear one of the greatest Oratorios, Operas or Symphonies, or even the matchless tone of the open G string of one of the great Strads?

The lack of competent instructors has been another cause for this condition. You have an abundance of native material in Dakota, voices capable of the highest possible development and there is no need to go outside of the state for teachers. Create the demand, make music as much a part of the child's life as his reading or writing, require that all grade teachers qualify as to their musical proficiency (the singing of scales, rote songs, etc.) within three years, and our Normal School will furnish you with competent instructors. I am informed that all students attending this school are required to take two terms of music and am wondering why they are not permitted to make use of this training. I have said that there are signs of an awakening to a fuller appreciation of musical art and there is also an increasing demand for its study, especially among our boys. Boys are never given the chance musically that girls are, it seems to be the accepted theory that they cannot learn to sing or play, but their voices are just as sweet and beautiful as those of girls and should receive as careful attention. This new era for musical art had its beginning about twenty years ago when several of our leading American musicians

asked that our colleges and universities admit music as a credit bearing study. At first they were received coldly and even ridiculed, but they believed in the disciplinary value of their art and continued to demand entrance. Victory came and now music is recognized as a valuable educational study and receives full credit, both for entrance and toward a degree. In Europe music has been a part of the general education for centuries and there are many schools devoted to the arts, endowed by the government.

In several of our states a similar demand was made by the State Music Teachers' Societies and, in some cases, was carried thru the legislatures. In Iowa, my native state, the music teachers had a very good law passed by the legislature, in the face of strong opposition from the superintendents and teachers of the public schools, but, today, the same school teachers would bitterly oppose any effort to take music out of the regular course of study.

North Dakota has taken a decided step in this direction by allowing credit for musical work done in the high school or with a private teacher. This is a decided forward step but does not quite get at the root of the problem, the child. Music is a growth and should be commenced at home, with the little nursery songs, then in the kindergarten and on thru the entire school course. If our mothers would sing more to their children we would have fewer monotones to trouble the supervisor of music. It is in the grammar school that we wish to see musical work and I firmly believe that it would have at least one good effect, that of keeping the boy in school. Being interested is to be half educated; facts are cold; music gives life to all and will help to relieve school work of its monotony.

Has music any value as an educational study, does it possess qualities which tend to develop mental discipline, has it any moral power? Look over the catalogs of our leading educational institutions and I believe that you will find a strong affirmative answer. Open wide the windows of your room; tell the children that they are to sing for thirty minutes; note the brighter look in the eyes, the more erect position of the body, the happy smiles. At the end of the music period you will be pleased to note that the pupils resume their studies with renewed interest. Was it worth while? Ask this class to sing the National Anthem, and you may be surprised to find that few, if any, know their national song. So far as I know this is the only country that can make such a statement, but this is not generally true any more, as it is taught in those states offering musical training in the schools. Ask for one of the many trashy songs of the day and you will get a ready response. This class of music possesses no value musically and is quite often, at least suggestively, immoral, and we should, for that reason, make an effort to stamp it out. Continue your music period, train your class to sing the better style of music, and you will be more than pleased with the results.

From the standpoint of mental discipline music offers much and it was because of this fact that it was admitted to our schools of higher learning. It trains more faculties than does any other one study, it develops memory equally with the languages, the study of harmony requires as much concentration as mathematics, the act of singing at sight demands the closest

possible concentration. We should not lose sight of the fact, too, that such study thoroughly develops the eye and ear and, thereby, aids many students.

One of the duties of our public school system is to better the moral tone of the country and music offers much in this direction. Show me a nation at play and I can tell you, fairly well, what the social and moral conditions are. We need the element of pleasure, of play, thruout our lives, and this is especially so during the formative period of young manhood and womanhood. Music enters into our life more, perhaps, than does any other subject, and we should guard against the quality that is most generally heard. One of the great national curses of the present day is the cheap nickle theater and picture show, where poor music, vile crimes and suggestive pictures are shown. The school can eliminate this evil by presenting occasional programs, school plays, etc. Music forms a large part of our church service and for this reason the children should be taught such songs as are common to all church services. Pope said:

"Some to church repair,

Not for the doctrine, but the music there."

This is true in many cases and we should seek to make that music, at all times, acceptable to Him who giveth every good gift.

I fear that my time is drawing to a close, so I must hasten. Can such study be introduced into our common schools? Yes, and at no great expense of school funds. How may it be accomplished and to what extent should it be taught? Require that all grade teachers, before receiving their certificates qualify in music to the extent of being able to sing the studies and song in such text books as the Natural Graded Course or the Modern Course, all major and minor scales, and some knowledge of the correct principles of voice placing, breathing and phrasing. You say that cannot be done. Nothing can be accomplished thru inaction. Let us see what a sister state has done. In Iowa the legislature made music a required study and gave the teachers three years in which to qualify. Hear what Prof. C. A. Fullerton, Dean of the Dept. of Music at the State Normal has to say of such training, "Prior to the enactment of the Iowa Music Law, sixty per cent of the normal students had, upon entering, no previous preparation in music, today I rarely find one, and why? Because we are teaching music along psychological lines. We begin with the kindergarten, and when our pupils leave the high school, they are able to appreciate and understand the best musically, and can read fairly well and are ready to take up more serious study." Do you not believe that we owe it to our children to give them every possible advantage in life? Certainly you do and I feel certain that you will give this matter full consideration.

What should be taught in this course? I would advise a careful course of training, beginning with the kindergarten, where the teacher should seek to eliminate the monotone and teach the songs of childhood; in the grades, scales, major and minor and the songs contained in the many excellent text books should be taught, while in the high school, more advanced technic should be given, together with part singing, ear training and general choral training, should be taken up. Students desiring to

elect music as a part of their course, should be allowed to do so under a competent instructor, and credit given for such work. Give a few musical and literary programs during the year, interest the general public in your work and that of the school, and you will find that you have spent one of the most interesting and profitable years of your life. Let me ask you to try this experiment and advise me as to the results. Allow me to thank you for your kind attention and to wish you success in your work as music teachers

DEPARTMENT OF
INDUSTRIAL EDUCATION

MINUTES

OF MEETING OF DEPARTMENT OF INDUSTRIAL EDUCATION.

Bismarck, N. D., Oct. 18, 1910.

Meeting called to order by Pres. W. M. Kern of Ellendale.

A very comprehensive paper on the subject, "Industrial Education a Necessity of the Times," was read by Supt. H. A. Tewell of Cando. This was followed by a discussion by E. R. Edwards of Minto.

Miss Hoover of the Agricultural College next read a paper upon "Domestic Science and Art in Rural Schools." This paper was discussed by Prof. B. A. Wallace of Valley City in whose absence the discussion was read by Prof. Selden of Valley City.

This was followed by a general discussion.

The next paper upon the subject of "The Grammar Grade Course in Manual Training. What? Why?" was read by its author, Prof. A. E. Demphy of Ellendale. Supt. A. G. Crane of Jamestown, who was to have discussed this paper, was absent.

The election of officers resulted as follows:

President—A. E. Demphy, Ellendale.

Vice President—Miss Hoover, of the Agricultural College.

Secretary—Supt. Hess, of Larimore.

E. R. EDWARDS,
Secretary pro tem.

INDUSTRIAL EDUCATION A NECESSITY OF THE TIMES.

H. E. TEWELL, CANDO.

The end of education is to render the individual as much as possible an instrument of happiness and usefulness, first, to himself, and next, to others. But even our schools partake of the great fault of American life in general. It is too strenuous, too full of excitement, of rush and hurry, of hard work and hard play. We need more time to build up ideals, more time for leisure, for hope, for retrospect and anticipation. The pupil needs time to work up what is taught, to absorb it and to work it up into an apperception field for tomorrow. This, however, he will not do without *interest*.

Education is the great money-maker, not by extortion, but by production—rings down to us thru the decades from the quill of Horace Mann. Thus with one mighty sweep of his pen not only prophesies, but designates the genius of this age,—Industrial Education. According to the United States Commissioner of Education, a common school education increases a man's wage-earning power 50 per cent, a high school education, 100 per cent, and a college training, 200 per cent. I wish to contend that every boy and girl should come within the 50 per cent class and receive at least the equivalent of a common school education. This cannot be done so long as practically everything is dominated by the college ideal. We must come to see that it is the absolute right of the boy who cannot go to high school to be equally well fitted for a mechanical line of work if he cares to pursue it, and have the same amount of money spent for his education. Look over ten high school courses of study picked at random, and you will find that nine of them are manifestly planned to fit students for college. Talk to the high school teachers and they will tell you these courses will fit students for certain departments in the State University.

Look over ten grammar grade courses, also picked at random, and you will find that all ten of them are planned to fit pupils for the high school. Talk with the teachers and you will learn that they advise all their students, except the dunces, to go on to high school, "and the reason they do not advise the dunces to go is that their going would reflect upon their teachers." The more one studies the situation the more surely is he led to the conclusion that the aim of the elementary school is to fit for the high school, which, in turn, aims to fit for the college, and in many cases the aim of the college is to fit for still higher work in the university.

If a pupil switches off at any point from this straight "high way" thrown up to be pressed by all students feet alike, he is looked upon as getting out of the royal road and must be foolish or dull—really an inferior person. But while doing so, he may be starting toward his highest possible place in the world. Higher book learning does not provide the only road to success in life, yet the school recognizes no other. Alas for the 85 or the 90 per cent that fall out by the way!

A school system is unlike a business organization in that its primary

object is not to make money, but there are many points of similarity between them, and many places where business methods might well be applied to the school system. The object of the school should be to make the best possible men and women from whatever material is furnished. We probably exercise care enough in the spending of money for teachers and supplies, but we do not use care enough to see that *none* of our raw material is lost or wasted by the process of education. What were formerly the by-products of many manufactories are now their most important sources of profit, and I think that we are fast coming to see that something should be done to save a large number of pupils who never complete the elementary school course, these by-products of our school organization. If the high school graduate is the finished product of the system of education provided by the state, is not the loss of material dropped or spoiled in the process tremendous?

I feel confident that in the near future our schools will have to be so organized that not only will all pupils in the elementary school have more construction work than there is at present, but that those who are non-bookish or must leave school early to go to work will be given an education of a more practical kind which will make them feel that they are being fitted to do something in particular.

A partial solution of this problem is to be had in Industrial Education—open to all.

In this discussion, Industrial Education, includes manual training, but they are not to be confounded. Manual training or education, deals with constructive problems primarily for their *educational* and *disciplinary values*, striving to give the child a broad basis of co-ordinated experiences of hand and mind as his leverage in attacking the problems of life. Industrial education proper aims at the completion of merchantable and marketable products.

The former finds its great excellence in the keener intellect, more accurate muscular control and judgment. The latter finds its great excellence in automatic and mechanical execution as means to pecuniary advantage.

Rightly or wrongly, for better or worse, we are committed to a policy of the broadest education, a policy, the wisdom of which has passed the stage of discussion. Looked at in a broad way, industrial education does not differ logically from any other form of professional training that requires a large fund of highly specialized knowledge. Nor do industrial people as such necessarily constitute a class by themselves but are men like to other men who love and hate, who earn and spend, who read and think, act and vote as their fellows do.

This leads us to believe that industrial education is not a thing by itself but is rather a phrase, and an important one, too, of our general system of the most comprehensive education—a conviction that is more plausible when we remember that every man needs two, not simply one—education, one that is vocational and one that is not vocational—one that fits him to work and one that fits him to live. Actually, there is less difference between industry and occupation than we would once agree to. You are aware of the fact that 90 per cent of the people follow industrial pursuits.

and will continue to do so; all major like all other essential activities must go on in the future as at the present and in the past, even though every man in the community were a college graduate. It is for the public weal that these major industries be developed and occupied by educated men—when we take note of all this surely this position is not unreasonable.

Not revolution, is needed to meet the demands of the times. Of the appalling number of pupils lost to the schools and communities in the lower grammar grades, it is certain that a very large percentage fail, not because of the lack of ability, but because their minds are appealed to by things that are concrete, by realities rather than images, whereas the work of the traditional school course is almost entirely abstract. It is from this large class of pupils of this type of mind that the highest grade of intelligent industrial works should naturally come, and it is in this direction that the door of opportunity should be opened to pupils of the elementary schools. Their claim to special preparation is just as strong as that of the academic pupil who is amply provided for by the same elementary school course.

July 2nd, 1862, Abraham Lincoln affixed his signature to one of the most if not the most far-reaching bits of federal legislation ever enacted—the land grant act whereby there was provided for each state of the union “at least one college whose leading object should be, without excluding other scientific and classical studies, to teach such branches of learning as are related to agriculture and the mechanics arts—in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life.” Building on this broadest of educational foundations most of the states have established industrial education on a new basis.

These are the great state universities. We can truly say that on college levels today industrial education is not a thing apart, but is an integral portion of the great educational effort by which the people of a commonwealth seek both to educate all classes of men and at the same time develop their resources, their industries, their occupation, their literature, their art and their activities generally.

But as yet we have no *system of secondary* education that can be called liberal or even industrial. And until the matter is settled and settled right at this point, our system is weak at its most important level, because it is our secondary education that touches our people during their formative period, and that really reaches the masses.

True, the high schools are open to all who have finished the grades, but they do not offer to most classes of people that instruction which is a preparation for life or which constitutes life and which the needs of the times and impulse of the people demand. The high schools are schools of the people and in response to their demands they have added the old-time classical courses to those of modern science, in manual training, in domestic science, and art, agriculture, bookkeeping, stenography, typewriting, typesetting—a list of vocational courses almost too long to be mentioned, all without little prejudice, but vastly to the enrichment of the traditional courses of study. It seems a fact that the high schools are rapidly moving in the lead of the colleges and it will not be long until in response to public de-

mands and *common sense* and every day practical life we shall have a more or less complete system of education reaching out and touching our people in every point of utility, in which men and women may be able to get that education which will not only fit them for life but will fit them to live. We *can combine* the vocational and the non-vocational in our grammar grades and in our high schools *if we will* and each be the better for it, and each be the better for the other.

After due consideration and some little experience, I must earnestly advocate the taking over of our industrial education in all its forms, largely, into the existing system of secondary schools, seeing to it that any how one fourth the time of every pupil is devoted to something vocational, something industrial, if you will. No industry is too common to use for this purpose. It is the common, ordinary things in life that are after all fundamental and it is through them that we have the privilege to teach life itself. Trade schools, would you have them? By all means, but as a part of the secondary school system. Agricultural schools? Most certainly, but as integral part of the high school. Commercial schools? Yes indeed, but not divorced from the high school. And I would have every student devote not less than one fourth and not more than one half his time to these occupational lines which will accrue a gain of from 25 to 35 per cent of educational efficiency to himself. Still another reason: everyone who thinks knows that education or no education, culture or no culture, whatever the grade of civilization we may produced, certain fundamental industries must go on still. Further, we know that if these fundamental industries are to be well conducted and our natural resources developed and conserved that these activities must be in the hands of capable men. Yes, of educated men, for industry, like every other activity of man, is capable of development by means of orderly knowledge and trained minds. Education like religion, must somewhat re-adjust itself to new conditions and prepare to help the common average man to lead a life that is both useful to his community and a satisfaction to himself.

Religion has its aristocracy, education had (?) its aristocracy, by which (aristocracy) a few were redeemed at the expense of the many. Such conditions of affairs is past, and education, again like religion, readjusting itself to the necessities of the times, must help the common man to meet and solve the common issues of life better than they have ever been met and solved before. Hence, industrial education, hence vocational education, hence the long stifled necessities of the people realized. People who have a tendency to blind the eye, turned toward the industrial education, let me call the attention of such to the fact that whatever their social status, the industrial people of America hold the balance of power politically and socially, for they constitute 90 per cent of the population. and that for all practical purposes, and in the last analysis they *are the people*, and further their education whatever it is to be *will really constitute our system*.

High schools that are introducing the industrial features are developing along the proper lines, for the high schools are not preparatory schools for college. They may be that, *but more*, they are pre-eminently the schools of

the people, for the people and by the people, wherein the people should be fitted for life's toils for where one individual is educated in college, twenty will get all their preparation in high school and where 20 get their preparation in the high school, 80 get their preparation below the high school. I am perfectly aware that all that has been said and more that may be surmised will be held by some as lowering of standards and a degrading of education by "commercializing" it. Against such conclusion, I protest most earnestly. I would like to inquire of such, does it degrade a thing to use it legitimately? Does it place a stigma upon religion because it uplifts the fallen, or sustains the mass of men from falling? Is education a luxury to be restricted to a few favored individuals, or is it a power to uplift and sustain and develop all men? Is it for Jew and Gentile alike? Are you afraid to educate him who breaks stone on the pike? Is the education of the gentlemen too good for him? Does it make your satisfaction less when it makes his more? The farmer, the craftsman, the industrialist generally, labors only in the daylight hours and for a portion of his time. What he does with the balance of his latent energies and time is of the utmost concern. Here is the great asset of our people, both social and physical; both economical and political.

If this great body of men can properly be educated, the racial asset of their leisure time will in the end, in the aggregate, be tremendous. It is this mass and what it thinks and does in its leisure hours either blindly or otherwise that will ultimately fix the trend of our development and the bounds of our achievement educationally, socially, industrially. Moreover, it is out of this multitude that leaders arise, and if their education be sound, then will our leaders be wise and safe. We cannot maintain any longer an educated aristocracy. There will be but one aristocracy and that will be the aristocracy of personal achievements. This will be the only possible check towards worldwide commercialization—'merge our industrial education in our general system.'

One more reason—a reform in the idea that a course is formed mainly for the one who graduates. If the vocational and the non-vocational are properly paralleled the course is good from whatever point it is left and whenever abandoned it has taught the student the proper balance between industry and life; capital and labor, the means and the ends of life.

All this will take time. It means the making of a more complicated system of instruction than has ever been undertaken—a system as complicated as American democratic life—but it must meet the changing necessities of the times, and meet the requirements of the people.

"INDUSTRIAL EDUCATION A NECESSITY OF THE TIMES." DISCUSSION

E. R. EDWARDS, MINTO.

There is so little with which I disagree, in the paper just read that I shall devote my five minutes to a general discussion of the theme.

The United States is today undertaking a thing heretofore unknown; it is trying to educate everybody. If "it is the first business of the state to educate," then it must be a national duty in our country to educate everybody. Are we doing it? Our expenditures are immense. Our system is imposing. But both are very inadequate to meet the needs of all the people.

A certain factory inspector sought to ascertain the reason why so many children in his district who could go to school seemed to prefer to work under unsanitary conditions in a factory. All but two per cent of those questioned, who were from fourteen to sixteen years of age preferred the factory to school. Some of their reasons were; "The boss does not hit us." "We have some money to spend." "We can do what they tell us." "We know what the boss means when he shows us." "We are sure to get it right."

Something is wrong when boys and girls take such an attitude toward the school. The trouble is that we are still putting most of our emphasis upon the "scholar and gentlemen" courses, instead of putting it upon the industrial courses, the courses that meet the needs of the masses. If we fit boys and girls for anything we fit them for college, whereas we should fit them for life. This does very well the twenty per cent of Aldens and Brewsters among us. But what about the thousands who call themselves Americans, and who answer to such names as Alessandro, Lars, Ole, Heinrick, Ignatz, Ikey, Leo, Mike, Cosmer, and Stanilaus, who are yearly coming to the doors of our schools and asking for their money's worth? Do they get it? Can they get it? They pour thru our Academic's halls and are meek enough and on the whole well enough educated up to about the 6th grade. After that the girls spend most of their time studying each others dress, and devising new ways of doing their hair, and the boys find their chief delight in pounding one another on the back with a geography. These young human animals object to learning most things. They don't want to keep their heads bent over a book that tells how De Soto or somebody discovered the Mississippi. The man is dead. They are more interested in watching a companion perform a dangerous feat of sharpening a pencil.

The criticism is well made that some of our schools are just places to keep children until they can go to work. One glowing fault of our democracy is that everyone wants to rise, and that the idea of rising is so often dissociated from handicraft. Depreciation surrounds all manual labor and handicraft.

Here is a girl who can make beautiful Japanese embroidery, putting a number of different shades of silk into a single petal. She takes to the

cooking classes as easily as a bird takes to air; but, alas, she can't get square and cube root and history is hard for her. She is therefore a failure in school. Here is a boy who stands before a lathe like an enchanted saint before a shrine. His agile fingers, fertile mechanical insight and true eye enable him to do almost anything in a mechanical way. He can't get English, grammar. He is a failure in school. These children are only types of thousands who go to their teachers after school hours and plead with them to have their marks raised. They have a vivid appreciation of the beating awaiting them at home when they present their report cards. Poor children! they have met the fundamental defect in our school system. They have done their best. Alas, human effort is not translated into percentages.

Take another case even more sad and just as typical. Here is a girl whose mother is a washer-woman. Because she has had no education herself she desires an education for her daughter. She has worked extra hours, made extra sacrifices and now feels she can give her daughter one year in high school. Here is probably the course offered her. English, Algebra, German or Latin, and Physiography. At the end of the year she goes to work in a box factory or becomes a milliner's apprentice. Her one year in the high school has given her neither culture, nor has it increased her earning capacity.

We boast of our democracy in education while we continue to maintain Academic standards. We educate, wholly educate perhaps, two per cent of our young people. That is we fit that many to go to college. Supt. Tewell has shown that 90 per cent of our people gain their living in industrial pursuits. We have made some progress possibly, taking the country over 5 per cent or 10 per cent of our education is industrial in nature. As long as 90 per cent of us must earn a living with our hands, and only 10 per cent of us earn a living with our academic knowledge, should not at least 50 per cent of our education in public and high school be industrial?

We have done something, but we have done it so grudgingly. Just consider the opposition there was to the H. S. B. requirement for manual training and domestic science in our high schools. Any outsider coming suddenly into the last meeting of the high school council would have thought that the high school men had been ordered to go out and poison their mothers-in-law, by the storm of protest raised. And where we do attempt work along industrial lines we try to save money and use various make-shifts instead of really doing things right in our commercial, agricultural, and manual training, and domestic science work. The school men are not so much to blame for these conditions as the public at large is. But I believe the general public will look with favor upon these things if we can convince them that we can make good. Let us try anyway.

INDUSTRIAL TRAINING IN THE ONE ROOM SCHOOL.

H. F. BUTTERFIELD, MAYVILLE.

The subject as proposed by the committee I take to mean the rural schools, as they are practically the only one room schools we can find today. Industrial education is a very broad term—indeed almost as broad as education itself—for it includes all educational activity, whether of work or study and of whatever grade, which bears a close relation to the industries. As applied to our public school system its chief aim is preparation for the industrial pursuits.

The problem of industrial education must be worked out with due regard to local industries, and here in North Dakota the problem is practically narrowed down to agriculture. The higher technical schools are already well developed, so what we need to keep constantly in mind is that the weakest point in our public school system today is to be found in the lack of elementary industrial training leading directly to training for the trades, of which agriculture is one of the most important in this great state. As some one has said "There is no more edifying, dignified, and profitable occupation than that of agriculture, which is conducted in an intelligent, scientific, and painstaking manner"

Twenty-five years ago in Wisconsin, Minnesota, and North Dakota we heard of lumber and wheat, and new railroads, and towns that were rapidly growing to be cities, the problem of a new land, and of immigrants were uppermost. Now the lands are much less productive and the states have gone through one cycle of development, and unproductive fate of the New England farmer awaits the farmers of this great state if they do not change their method of farming and come to realize that they must do something for their land, aside from the harvesting of a crop each year. In contrast to this take one county in Mississippi.

In many respects till recently the most backward of all localities, and you will find practically every country white boy of school age working a piece of ground with his own hands as a part of his education—working it, too, under proper direction, so that what he does has a definite educational value; working it, too, so as to produce a better yield at a lower cost than the land ever before knew. The greatest waste we have in this country today is the waste caused by the bad agricultural methods. The remedy of course, must be educational. We must apply a system of instruction that carries the right knowledge and the right practice to the farmer now on the soil. He will not go away from home—in the main he cannot go—to learn how to double his crop. The instruction must be brought to him, and in doing this we will be showing him one of the ways toward a cheaper and a better living. The farmers must be encouraged to do away with the idea of having their boys become something better as they call it than mere farmers, and to have them join the multitude of so called professional men, as clerks, bookkeepers, lawyers, and physicians, or young idlers whose sole ambition in life is to secure a "soft snap" and make money some how

without using their muscles. They should set the boys and girls at the actual work of planting the fields and the garden, hoeing the vegetables, cutting the grass, looking after the corn and potatoes, and taking care of the horses, cows, pigs, and chickens, and the chances are that those children would be interested in learning all that could be taught them about farming. Speaking generally of industrial or vocational education or training; it is a much simpler problem in the case of the girls than it is in the case of the boys. Four fifths of the girls ultimately follow the trade or profession of home-keeping and so should have a course in domestic science and art, not as a fitting for a remunerative occupation, but as a preparation for home making. We find these courses being introduced into our high schools and also courses in manual training for the boys, consisting principally of wood work. As only a very small per cent of our country boys and girls get as far as the high school we must give them something of this work in the country school. I feel that it is necessary that all the boys should have some manual training work in the form of wood work as it is being taught in a great many schools of every state today. Of course only a small per cent of the boys will ever find wood-working or wood-working tools a major factor in earning their livelihood. But it does give a training in manual skill and ideas of construction, the value of which is as fundamental in industrial life, as that of the multiplication table in business life, and of high practical value regardless of the particular industry undertaken. In looking over the reports of the different state superintendents it seems to be the general opinion over the entire country that manual training and agriculture are closely associated in the movement for the improvement of the rural schools. But that the efficiency of these subjects in the rural schools is closely connected with the general improvement in these schools. Taking the country as a whole much must be done to put the rural schools in a position where they may reap the benefit of such instruction as manual training and agriculture. As these subjects are in the scheme for the improvement of the rural schools the general introduction of them is bound to come later. The training of teachers is just now the most important problem in connection with the rural school movement. The state department and the Normal schools have taken a step in the right direction by requiring manual training, agriculture, and domestic science in the special ten and a half month course for rural teachers, and it is very encouraging to see the number of teachers that are taking advantage of that course at the present time. Of course the time required for each is necessarily short, but it is sufficient to give the teacher an understanding of the underlying principles of the work, to give a certain amount of proficiency, and to arouse in them an interest for the work which is one of the first things that must be done. The work can also be made such that they will see that it is possible and to their advantage to do some of it in their next school. For a very small sum a bench can be fitted up in one corner of the room and equipped with a set of tools that will meet all the requirements for the work of the grades. The work must be carried on systematically from the primary grades up. The haphazard busy work must be transformed into a systematically arranged course that will be followed out as

closely and carefully as any other course in the school. We may begin in the lower grades with simple paper folding and cutting and the working out of farm yard scenes and such things as the children are familiar with. As we advance through the grades the materials used must become more difficult to manipulate, and the projects made must become more complicated.

For instance in the third and fourth grades it is well to introduce, bristol board, binders board, book cloth, calendar pads, leatherette, passe, partout binding, LePages liquid glue, etc.; in the construction of such models as the tag, thread winder, pin tray, book mark, calendar, catch all, and in the repairing of school books. Beginning about the fifth grade thin wood can be used to advantage and such tools as the rule, try-square, knife, back saw, hammer, and auger bits, in the construction of such problems as the pencil sharpener; plant label; key tag; match scratcher; bill file; thread winder; key board; mop stick; paper knife; plant stand; dart; and kite frame. In the sixth and seventh and eighth grades use the same tools with the addition of the jack plane and a few others that may be necessary in the construction of such models as bread board; coat hanger; book rack; foot stool; towel roller; broom holder; blotting pad; pen tray; hammer handle; sled; etc., including some original projects of the pupils. If possible to the more advanced, teach how to lay out stairs, braces, rafters and such things as can be done with the two-foot square, and explain the different markings on the square. If the teacher does not know how herself she can in nearly every case find some one in the neighborhood who will be very glad to show her, or in some cases the older pupils will take pride in finding out and teaching the rest of the school. Simple working drawings of all the projects with all the necessary dimensions should be placed on the blackboard, large enough to be seen easily. It is also economy of the busy teachers time, to write on the board the names of the materials and tools to be used, with suggestions as to the more difficult parts of the work are to be done. The material for thin wood work can be obtained from cigar boxes, berry boxes, and best of all from berry crates that can be had for the asking in any village during the spring and summer. Above all the teacher should carefully plan and prepare the work before hand, and have well in hand what is to be presented.

It is generally assumed that manual training is an important part of industrial training. But it should not be regarded as the whole thing. It must justify itself by close adjustment and association with other forms of industrial training or education, that together they may count for the greatest educational efficiency in our schools. In so far as manual training has borne this relation to industrial education in rural schools it has grown in favor and usefulness. As I said before this problem of industrial education must be worked out with due regard to local industries, and therefore we must not ignore agriculture as it is the principal industry of this great state. To teach elementary agriculture in the rural schools does not necessarily require an expensive laboratory equipment as some contend, and that it is impossible for the small country schools to furnish. On the other hand the school is surrounded by farms where the practical application of agri-

cultural principles can be observed at all times. We find but few of the higher schools that are able to furnish such laboratory conditions as these. Of course the school terms are short and during rather an unfavorable season of the year, and as a result we must use such subject matter as can be adapted to the conditions. Funds are short for the purchase of text books, but this can be avoided to a great extent as copies of the year book of the department of agriculture may be obtained each year by writing to any United States Senator or Congressman. Bulletins are published at quite regular intervals that may be secured by writing to Mr. D. J. Crosby or Mr. A. C. True, Washington, D. C., Dept. of Agriculture. The Agricultural College and Experiment Station at Fargo issue bulletins, also, that may be had for the asking. They also issue samples of grains, seeds, plant diseases and troublesome weeds that can be purchased for the cost of preparation. The Agr. Dept. of the North Dakota Teachers Bulletin is also of great assistance to the rural teacher in carrying out a course in elementary agriculture.

Another great help is the organization of clubs for the boys and girls, and issuing prizes for the best results in manual training, domestic science, and art, and agriculture. These clubs can be made, to a great extent, to take the place of the school garden, where it is impossible to have the garden and we find a great many drawbacks to the school garden here where so many of the school terms are so short and during a season of the year when it is impossible to do any garden work. The collection and preservation of insects, especially the ones that are injurious to plant life can be made very interesting and profitable. Field trips can be made to inspect different kinds of soil: to collect and observe weeds; to collect diseased plants; to study local trees and shrubs; and to inspect poultry, sheep, cows, and horses of different breeds that may be in the neighborhood. For a good outline of a course in agriculture for the rural schools I refer you to circular No. 60 of the U. S. Exp. station by Mr. A. C. True, also to the report of the committee of seven in the proceedings of the N. D. E. A. for 1909.

Mr. H. T. Bailey says there is a seven-fold ability which constitutes industrial intelligence and is prerequisite to industrial efficiency, and which we must keep in mind in our teaching of industrial subjects. They are as follows:

1. Ability to grasp a situation; to see what is to be done.
2. Ability to interpret directions, spoken, written, and drawn.
3. Ability to foresee what will be required, and to plan accordingly.
4. Ability to cooperate intelligently with others.
5. Ability to do thoroly well whatever is undertaken.
6. Ability to estimate values justly.
7. Ability to secure from work the highest satisfaction of success.

"Language, mathematics, science, history, and art, must ever stand first in the elementary school. But these may be handled in such a manner that by means of them the seven-fold ability which constitutes industrial intelligence will be gradually developed from grade to grade. That ability is a matter of growth. It is in the last analysis a habit of mind." It is

the careful teaching of the industrial subjects that is a great assistance to the formation of such habits.

In conclusion I am going to give a few, of what I consider good reasons, for the existence of these industrial subjects in the public schools.

1. To cultivate an interest in and instill a love of manual labor and the occupation of agriculture.

2. To create a regard for industry in general and an appreciation of the material side of affairs of a highly civilized people.

3. To cultivate the active and creative instincts, as distinct, from the reflective and receptive, that are otherwise almost exclusively exercised in our schools.

4. To give practice in failure and success, thus putting to the test early in life the ability to do a certain thing.

5. To train the student in ways and methods of acquiring information for himself and incidentally to acquaint him with the manner in which information is originally acquired and the world's stock of knowledge has been accumulated.

6. To connect the school with real life and to make the value and need of schooling the more apparent.

7. As an avenue of communication between the pupil and the teacher, especially in agriculture, it being a field in which the pupil is likely to have a larger bulk of information than the teacher, but in which the training of the teacher can help to more exact knowledge.

DOMESTIC SCIENCE AND ART IN THE RURAL SCHOOL

JESSIE M. HOOVER, AGRICULTURAL COLLEGE.

Having been a rural teacher myself and recalling the fact that this is the most enjoyable part of my teaching (previous to my specialization) I feel peculiarly in sympathy with the problems of the rural teacher and the rural pupil. There are also many problems in the rural districts of this new state that do not occur in an older state, e. g., short terms of school, schools so far distant that they are difficult to reach, especially in winter weather, and in these same schools an attendant difficulty in getting competent teachers.

Then, too, laborers are few and the children are needed to help on the farm and in the home. All these, coupled together with a more or less impractical education, makes a rapid exodus from the rural school to the town school where the educational system is adapted for urban rather than rural people. This in turn reacts on the population and we find the farmer and his wife longing for the day of emancipation from the farm and a comfortable residence in the county seat town perhaps, where there are good schools, good churches and modern conveniences in the home. This tendency is bringing up the price of food by decreased tillage of the land, and the cost of living is going even higher.

But what can we do to make the home, either rural or urban, more attractive, and how can we improve the schools so that more than one per cent of the population will be attending higher institutions of learning and more than five per cent will attend our high schools? That the present day education does not fit the youth for life is true. After taking a season of so called cultural or mental training the girl is set adrift to learn as best she can the affairs of home and home making. In the time of our grandmothers a girl's scholastic education consisted of the three R's in more or less varying quantities and if she received a few months in the district school, she was considered educated. But these few weeks or months did not represent the girl's stock in store, for she was getting her education in the home under the tutorage of her mother, who taught the daughter to cook, clean, brew, weave and sew. In those days the home training was primary and the three R's secondary—useful and helpful, but not occupying all of the time. The civil war came and the bread winners of the north and south alike were reduced. All this contributed to a serious change in the household and the girl who had been supported by her father and brothers found it necessary to seek employment outside of the home, and the household arts no longer were handed down from the mother to the daughter in the home. With this came the enlarged field of education and the so called emancipation of woman. She now became an important factor in coeducational institutions. Her education was the same as her brother's. They entered college together, took the same course of study and emerged together prepared to do the same things in the same way. Can we wonder, then, that the girl did want and try

to do the thing for which she was prepared, the same thing her brother did? It is only within recent years that it has become apparent that if we would have improved home conditions we must educate the girl, the future home maker and mother, in lines which will develop efficiency in her life work. We would cease to depend upon providential interference and sleight of hand performance to convert the woman trained for the society butterfly, or the law, or medicine, or farming, or stenography, to become the center of a well ordered, systematic, wholesome home, to whom may be intrusted the care of helpless infancy and mature manhood. We need a revival of interest in the home, and we need to have our girls educated first in the things pertaining to their profession. But who will help, if not the teachers? Since the girl starts to school at the age of six and spends most of her waking hours in school until she is married or goes into the world's work, where better can she get the education that is worth while and will count for noble citizenship and a healthy race than right in school?

Our education must be vital, it must be uplifting, it must replace dull drudgery with intelligent, thinking labor. Science has done much for the farmer. He has risen far above mere brute strength through labor saving devices. The man with the hoe has been supplanted by the man with the steam plow. The answer to Edwin Markham's poem is found in modern science and invention.

"Bowed by the weight of centuries, he leans
Upon his hoe and gazes upon the ground,
The emptiness of ages in his face
And on his back the burdens of the world.

"How will you ever straighten up the
Touch it again with immortality,
Give back the upward looking and the light,
Rebuild in it the music and the dream?"

Just as science and invention have uplifted the burdens of the farmer, just so should it uplift the burdens of the farmer's wife and she should be taught through rising generations that the modern household conveniences are as applicable to the farm home as to the field. Indeed, it is imperative. If we would keep our good girls on the farm, we must furnish such knowledge as will lift the farm home far above the level of drudgery. The farmer's daughter has not been given a square deal; she is not given an equal opportunity with her brother who is generally given a share in the farm profits, while the girl is given her board and an occasional new dress in payment for her almost ceaseless toil.

Like most reforms in education, this study of the home and home problems has begun in the colleges, but if it is good for the favored few to know more of domestic science and art, it is ninety-nine times more important that it be given to those less favored. But how? We have no special teacher. We cannot afford one. Our curriculum is already overcrowded. If the children should attempt to cook, they might make a

failure and the teacher would be the common laughing stock for the critical and experienced mothers. This last, I think, is the saddest point of all, and has more to do with discouraging the enthusiastic, progressive teacher than any other one thing. And I feel sure that the same child would not be expected to know the multiplication table at one lesson. Domestic science is like every other science—"We mount the ladder round by round."

"But," you say "I have from twenty to thirty classes each day; what can I teach?" "What grade shall I begin with?" A good age is eight. And the lesson can be sewing coarse canvas, making long but even stitches. The child can make a school bag, hem a dust cloth, make a marble or button bag, a pencil case, and hem a towel, and the lessons should grade up to buttonholes. There has been more or less criticism from superintendents as to the making of doll clothes as play. It is a valuable way to teach form and proportion and color harmony, and at the same time develop the mother instinct in the girl. But in all the sewing work make something. The doll hat, the crocheted hood, all develop muscular exactness.

Another phase of the work that is important is cleanliness, and the schoolroom may be your laboratory where lessons in sweeping and dusting may be aptly given.

But you say, "What about Domestic Science? How can it taught in a rural school with an already overcrowded curriculum?" One way to get this introduced would be by eliminating something non-essential. Another method is to introduce it with other subjects, for example, in the geography or grammar class. Instead of dwelling on faraway France or Holland or England or the Orient, why not take a hint from the little children who, when left to their own devices, are not playing that they are French, Dutch or British children at all. They are playing keeping house and are living over the activities of the home, imitating the father or the mother. The interest of the child is in the home and we must get the link of connection between home and school and the parent and teacher. Let us take a concrete example, wheat. The child learns that North Dakota is a great wheat producing state, that the durum wheat and hard spring wheat are peculiar to this state. He is now prepared for a study of the seed, cultivation, milling and final products of milling, and we have a vast field for the introduction of elementary biology, agriculture, chemistry, physics, physiology, mathematics, etc. The child should, if possible, visit a flour mill. And here composition work can follow along this line; the uses of flour in the manufacture of macaroni, spaghetti, etc. Bread may follow. After a careful discussion of bread and methods of preparation the girl should be encouraged to make a loaf, or several loaves, and write out her observations of the process—testing the oven, baking, cooling, etc. Let the work be practical.

At some time during the year the children should be encouraged to have a fair at the schoolhouse when the girls may display their needle work and baking and cooking, and the boys their corn, potatoes and agricultural products.

Many feel skeptical about teaching Domestic Science without a laboratory. If you can have some inexpensive apparatus in the school, very good. If not, have the lesson at school and the practice at home in the mother's kitchen. Inexpensive apparatus can be purchased, and tables and cupboards made from drygoods boxes. Denatured alcohol stoves or laundry gas heaters may be used.

One point that should not be overlooked is the time squandered on certain parts of arithmetic and bookkeeping. Of what value can a study of the apothecaries' table or the troy table be to pupils in the rural schools? If one should happen to become an apothecary or a dealer in precious metals or precious stones, that will be time enough to learn the table. Why not substitute a table of this kind? 2 cups are 1 pint; 16 tablespoons are 1 cup; 3 teaspoons are 1 tablespoon. Wouldn't that be more to the point? And the pupil would never forget because she would have constant use for it.

Not only should the rural school endeavor to get nearer the home, which is vital, but we should work for rural high schools, where the lines of education shall be along lines adapted to those to be educated, and agriculture, domestic science, domestic art, and manual training should become prominent in the course. With such a high school in each county or township we will be able to give better opportunities for the farmers' boys and girls and they will not then need miraculous intervention to suddenly make farmers and farmers' wives of them when their education has been side by side with the city girl or the city boy who is preparing to make a living by his wits rather than to become a producer, wresting wealth and food from the soil. Then when farmers send the boys and girls to the high schools to prepare to enter the agricultural colleges, they will not be instead weaned away from the farms by contact with city boys and girls and their aims and their ideas of things pertaining to the country.

My plea is for better homes, and the place to begin is in the school, the rural school for the rural folk, the town school for the town folk; a more thorough education in food, diet, hygiene, care of the sick, care of children, a study of house construction, labor saving devices, and household conveniences.

All these subjects can be studied from the United States bulletins, which will be sent free by applying to the Secretary of Agriculture at Washington. These bulletins are textbooks and are accurate. The lessons learned will be interesting and will be remembered because they are both practical and useful.

President Work, of the College of Industrial Arts of Denton, Texas, has said that more than five per cent of those entering the elementary school will complete the high school course when we cease to emphasize the instruction that arouses fake hopes and ambitions, and we shall develop a type of mind more sensible, practical and human.

DISCUSSION.

WRITTEN BY B. A. WALLACE, HILLSBORO.

Not having had the pleasure of reading the paper by Miss Hoover, I am not in a position to discuss it. An entire change of plans since I promised to discuss it prevented my being present to hear it. So I must simply strike out in lines of my own.

The teaching of domestic science in the grades is so far confined mainly to the city schools and occasional village schools. The discussion of today is as to the advisability and methods of extending it to the rural schools. When we think that a relatively larger number of girls in city than in country go into stenography, clerking, bookkeeping, etc., and in the country a larger proportion go into housework, it is evident that there is if anything a greater need that country girls have an opportunity to learn right methods of housework than for city girls to have that opportunity. Too often discussions of new methods in country schools deal with consolidated schools that we need to note that while we have 600 consolidated schools (1909) we have 300,000 one-room country schools. Much needs yet to be done, for the consolidated schools, but this is a comparatively easy part of the problem. What about the 300,000 one-room schools? Can domestic science be introduced into them?

We may hear the reply, "No; the farmers will not consent; they are too conservative." True, they are conservative; we need to use every means, teachers' meetings, school officers' meetings, local papers, commencement talks, frequent suggestions in conversation, to arouse an interest in this as in other lines of progress. But after all these conservatives are not so hard to handle. It is hard to get them to change. But let a live teacher go into the neighborhood and gain the friendship and confidence of the pupils, and she can introduce agriculture, domestic science, or almost anything else, and the very law of inertia that makes the conservative a conservative will keep him sitting on the fence while the procession goes on by.

Some one else says that it is too expensive and the farmers cannot afford it. Let us go right to the county treasurer's books and show how little the farmers spend for schools. It is easy to show that the American public school is the biggest bargain in existence. Then let us go right on and show that here as elsewhere the additional 10 or 20 per cent put into improving the quality is the best part of the investment.

A third objection is the overcrowded course of study. But the things already there have no divine right to stay simply because they happened to be there first. Education is democratic, and the older subjects are simply on a parity with the newer. Each subject or part of one must be called upon to show the values that justify its existence in the course. When this is done, one soon finds that every subject now there belongs there, but that most of them have gotten loaded up with more or less useless material or at least material not essential to the purpose for which the

subject exists in the course. The dropping of these non-essentials will make possible the inserting of some new material—domestic science, agriculture, etc.

The greatest difficulty of all is, of course, the lack of trained teachers. But if these 300,000 schools wait for domestic science (or anything else) until there are 300,000 trained teachers, I am afraid it will be a long wait. We must start with what we have. There are a few thoroly trained teachers sent out each year; the domestic science courses in the high and summer schools are furnishing us quite a number who know something worth much to the children of either city or rural schools; there are others who know something about sewing or cooking or both and who can get their pupils interested in them. Let us use all these teachers to further the work, even tho some of them may be woefully weak in scientific training; let us encourage them by oral suggestion, and by help in institute and summer school.

We need this work in domestic science; we need it in country schools as well as in city; we can make room for it; we can afford to pay for it. Let's work for it and get it.

DEPARTMENT OF
RURAL SCHOOL EDUCATION

MINUTES

House Chamber, Capitol, Bismarck, N. D., Oct. 18, 1910.

Meeting called to order by President, Mrs. Jean McNaughton Stevens, who addressed the assembly by a few well chosen words.

The minutes of our preceding meeting were then read. They were approved with one exception viz.: that Prof. Randlett declined the nomination as president and Mrs. Stevens was unanimously elected.

The regular program was then rendered. This included music by the band of the State Industrial School at Mandan, which was heartily enjoyed and the boys were encored.

The principal address was by Prof. MacNeal James of the Valley City Normal, whose subject was Rural Work Worth While.

Those who responded to the "Ten Minute Treats" were Miss Anna Inwood of Burleigh county whose subject was Attendance, Mrs. Mayme Zychlinski on Teaching Foreigners and Anne O. Gjellstad on Rural Problems.

The Rural department rejoiced in the large attendance of interested men and women, especially from the counties of Emmons, Morton and Burleigh.

The department then proceeded to elect officers for 1910-1911. Mrs. Stevens was unanimously re-elected as president by rising vote called for by State Supt. Stockwell.

Prof. MacNeal James of the Valley City Normal was unanimously elected vice president. Miss Anne O. Gjellstad was re-elected as secretary. Mr. A. H. Gleason of Underwood, N. D. was elected treasurer. Supt. H. H. Hanson of Emmons county was elected our member of the nominating committee.

Among those who showed a warm interest in the Rural School problems were State Supt. Stockwell, Supt. Smith, President of General Association, and many superintendents.

On motion a committee was appointed to memorialize the general association as to the changes necessary in the constitution in the N. D. E. A. to make the position of the Rural department useful.

Mrs. Stevens appointed N. C. MacDonald, Prin. of Mandan, MacNeal James of Valley City and was requested to be the third herself.

The body then proceeded to discuss fully the propriety of memorializing the legislature in favor of a state grant and aid of the Rural School which should reach and maintain a given standard. It was agreed to ask the general association to approve of this by resolution.

On motion the Department adjourned to meet at 8:00 P. M.

EVENING SESSION.

The evening session of the Rural department convened in the Presbyterian church. The opening music was omitted because of late trains.

Miss Hoover, Dean of the Household Economics, gave an earnest and inspiring talk.

The president of the Rural section presented a new idea in desk coloring—green. This she hails from Rockford, Ill. The desks can be as restful as the green grass.

The church was then darkened and Prof. Bell of the A. C. gave a delightful and instructive illustrated lecture on Bird Life.

Adjournment.

ANNE O. GJELLSTAD,
Secretary.

ADDRESS OF PRESIDENT RURAL SECTION, N. D. E. A.

JEAN MCNAUGHTON STEVENS, TOWNER.

Friends of the Rural School:

I give you greeting, and welcome you to the first meeting of the truly Rural Department of the N. D. E. A. I am surprised, and delighted, to see so many here, so many who have taken pains to come beforehand.

We Rurals are part of the foundation of the N. D. E. A. We that had organized as a special department in 1896, but the name Elementary drifted into the especial home of the grades, the urban schools that are the base of our budding high schools.

In Minot, 1909, we hived off again, and the times were ripe. It is my duty and privilege to name the key, and I desire to pitch it high. In this I shall recall the text of an old man, eloquent, recently called to his reward, who in his 87th year, still taught the U. S. Senate how to pray. One of his names, Everett, recalls the uncle for whom he was named, the man whose polished diction delighted thousands, yet on the field of Gettysburg, a few heartfelt sentences uttered by the man whose heart was daily wrung in the White House, will long outlive the oratory of Edward Everett. The other name of my hero, Hale, is famous in our annals as that not only of the founders of Harvard, but of the man who regretted he had only one life to give his country. Let us not die but *live* for North Dakota.

Just yesterday we read with awe and reverence, of the death of Julia Ward Howe.

"In whose beauty of the lilies Christ was born across the sea
With a glory in his bosom that transfigures you and me
As He died to make men holy, let us *live* to make men free
While time goes marching on."

But to return to Edward Everett Hale, the last lesson he taught me was from a text to be used on Boston Common in his outdoor work. "Let us make man," and he asked, "What kind of men are you making?"

That is what I ask you, fellow teachers in the Rural Schools who "feed the lambs." What kind of men—and women—are we making?

RURAL WORK WORTH WHILE.

MACNEAL JAMES, VALLEY CITY.

This subject is a broad one. We shall limit it in this paper to, work in agriculture worth while. Before any subject is worth while, the teacher must believe that it has value. We do the things well which seem of most worth. We shall then first consider a few reasons why this work should have a place in the curriculum of our country schools.

In the first place agriculture is worth the teaching because of its educational value. The same activities of the mind are developed as in the other sciences. For example, the powers of observation and discrimination are exercised very largely. It requires as much mental effort to select the best ear of corn from a sample as it does to note the likenesses or differences between two plants. The principle of capillary action in physics gains in educational value when a practical application of it is made to the rise of water in the soil.

Agriculture tends to make a close connection between the school and real life thus adding to the interest of the work. It also keeps older pupils in school. Many times the larger pupils see little value in the work they are required to do at school because, as far as they can see, it has little connection with any other than school life.

Again, by giving instruction about the things in the child's environment, he is put into more intimate relation and closer sympathy with his surroundings. This will enable him to see more of the possibilities of country life, and tend to make him a more contented and useful citizen. Instead of wanting to get away from the wholesome life of the farm, he will be apt to wish to stay there and make it a more beautiful and a more pleasant place to live.

The population of the United States doubles every twenty-five years. Most of our profitable agricultural lands are already under cultivation. These facts coupled with that of the ever increased cost of the necessities of life, lead the speaker to believe that the farmer of the future has a problem to solve. This is the problem of feeding our millions a few years hence.

The history of agriculture has always been that as the land is tilled from generation to generation, it has become less and less productive, until it is only thru the most careful cultivation and by the addition of large quantities of commercial fertilizers that crops can be grown. This is the condition of the soils of China, India and many parts of Europe. But we need not go that far from home. There are thousands of abandoned farms in the eastern part of our own country, upon which the owners could not make a living. New York state alone has more than 12,000 of them. Many farms in the corn belt of the central west are becoming unproductive to an alarming degree. By teaching this subject we may impart knowledge which will tend to aid in the conservation of the fertility of the soil. There are many other reasons why agriculture should

have a place in the rural school but we must hasten to more definite work.

There are many obstacles to overcome in teaching this new subject. Few teachers are prepared to teach it. The elementary texts we have are not satisfactory, making it difficult to do creditable work. Then the field of material to select from is large; this makes it difficult for the average teacher to know what to teach. One should select that material which is most vital and which is of most value to the section of the country in which he is teaching. The study of the growing of cotton is interesting, but it should not find a place in a course of elementary agriculture in our state. Those things in this subject most worth while to the child are the things in his own environment.

Then many people have little faith in the possibility of benefit being derived from the teaching of this subject in the grades. Some farmers themselves laugh at the idea of a woman teaching agriculture. This brings us to a second requirement which is necessary if we would make this subject worth while. That is, we should strive to teach the science of agriculture, and not the art. Some of you may be confronted by a solicitous parent some morning if you try to introduce agriculture, who informs you that he wants "John to study reading and arithmetic at school," and he will teach him agriculture at home. True, the farmer can teach his son some agriculture but he teaches him the art, leaving the science almost untouched. For example, take the fundamental operation of plowing; any farmer can teach how to set the plow so that it will take more or less land, or go deep or shallow. But few there are who are able to state definite reasons why the ground should be plowed; what relation exists between the plowing and the physical condition of the soil, the moisture content of the soil, or the organic life in it. These things are fundamental, and are the things we should lay stress upon.

Any intelligent teacher, man or woman can learn many of the principles which underlie the science of agriculture. These principles can be taught as definitely as most of the other things one is supposed to teach. We shall not attempt to suggest a course of study. The course as outlined for the grades by the state course is a good one, but we will try to give a few lessons to illustrate something of the manner we should attack this work. For example, let us consider the plant.

All animals and man depend directly or indirectly upon the plant for food. Besides the plant's furnishing protection for man in the way of material for houses and clothing, it modifies climate by breaking winds, giving shade and conserving moisture. Much of our soil is also formed, its fertility maintained, and its physical condition greatly improved by the plant. Hence we may say that the plant is the most important thing the farmer deals with.

If these things are true the plant may be used as the foundation for much of the work in agriculture. In order that a plant may grow, six factors are necessary. They are: seed or some other method of propagation, home, usually furnished by the soil, light, heat, moisture and plant food. Most farming operations in caring for crops, are performed in

order to bring about conditions which will be most conducive in supplying some of these necessities to the plant. For example, let us consider the use cultivation of the soil is to plant growth.

Before a crop is planted the ground is plowed. This is done, first, for the purpose of changing the tilth or physical condition of the soil. The plow breaks up the crust which tends to form on the surface. This is desirable in order that rains may soak into the ground instead of running off as they do when the ground is hard. Then air, which is essential to the roots of growing plants, is allowed to pass into the soil. This air not only furnishes food for the roots of the plant but supplies it to the beneficial organisms in the soil. Subsequent cultivation aids the processes described above, and also conserves moisture already in the soil by destroying weeds, which use it, and by preventing loss of water by evaporation from the surface.

In order to understand how the loss of water by evaporation is hindered let us consider the forms of water in the soil and their movements. There are three forms, the free or gravitational water which is found on the surface of the ground and in the surface soil after a rain, and which is always pulled downward by the force of gravity. Second, film water, that which is found around every soil particle and which is held so tenaciously that only artificial heat can drive it off. The third form is called capillary water, found around and between the soil particles and which is moved by the force of capillarity. This force always draws water from a damper to a dryer place. If an ink blotter is put in contact with a drop of ink it immediately takes up the ink by the force of capillarity. The wick of a lamp draws oil to the top of the wick by the same force.

Quite deep in the soil capillary water is renewed by the free water. This then tends to rise to the surface of the soil or to the roots of plants, thru capillary passageways or tubes as it were, because these places are dryer than the soil farther down. When the water reaches the surface it is lost by evaporation and more is brought upward. This water is a total loss as it does not aid in crop growth, and it is desirable that it be checked. If the soil be cultivated to the depth of three inches the passageways are broken up and the particles of soil are loosened so that the spaces between them are larger. Little water will then be lost by evaporation until the capillary tubes are again formed; this takes some time, hence moisture is saved for the crop.

Another necessary factor of plant growth is plant food. This is supplied to the air and soil. Plant chemists tell us that there are ten elements absolutely necessary to plant growth. If any one of these are lacking the plant will not mature. These elements are the gases, carbon, supplied by the air, hydrogen and oxygen by water taken in thru the roots, and a gas nitrogen along with the mineral elements, phosphoras, potassium, calcium, magnesium, sulphur and iron supplied by the soil.

It is the farmer's business to see to it that these elements are available to the plant. If they are deficient in the soil he must put them there; if they are in an insoluble form he must see to it that they are put into a form the plants can use. By this we mean putting them into a form which is soluble in water, for all plant food must first be dissolved, before it

can be taken into the plant.. Proper cultivating and managing the soil bring about these conditions.

These plant foods are lost to the soil in several ways. The main one is by cropping. Another is by leaching, that is, by being carried away by water. A heavy loss in our state is that of erosion. The wind both in winter and summer is busy carrying away particles of soils from the field and dumping them into waste places where it is lost to cultivation. In order then to maintain the fertility of our soils the farmer must make good these losses by putting the plant foods back.

While there are ten elements necessary to plant growth, only three need give the farmer any concern, usually. Carbon, hydrogen, and oxygen are supplied by the air and water in unlimited amounts. The four elements, sulphur, calcium, iron and magnesium are required in small amounts, and are found in the soil in such large quantities that they seldom become short. But nitrogen, phosphorus, and potassium are required in large amounts by the growing plant, and one or more are often not very abundant so that these often become deficient. Any one of these may be the limiting factor in crop growth. That is, if there were enough of all the elements necessary to produce a twenty-five bushel crop of wheat, except nitrogen and only enough of it available for fifteen bushels, fifteen and not twenty-five bushels would be the yield.

Geologists tell us that there is a given amount of these elements in any given soil, that the quantity is not indefinite and inexhaustible. If the farmer keeps drawing out of this supply indefinitely without putting something back there will come a time when there will be no more to draw.

This can best be illustrated by some soil analysis. No figures were available on the soils of our own state, but some from the typical corn belt land of the central and northern part of Illinois are used. These analyses show that the average soils in the first seven inches contain:

4,800 pounds of nitrogen, 1,200 pounds of phosphorus, and 34,000 pounds of potassium. In order to grow a fifty bushel crop of corn over this region, which is only an average yield, the following amounts of the food elements are required to grow the stalks and grain: nitrogen 74 pounds, phosphorus 11.5 pounds and potassium 35.5. Now if we divide the first set of figures by the second we can find approximately the number of years' supply of these foods there are in the soil if fifty bushels are grown each year. The results show that there are 64 years' supply of nitrogen, 105 of phosphorus, and 900 of potassium. That is, the nitrogen would be the first to give out, and it would be used up in growing sixty-five crops if none were put back, and if fifty bushels could be grown each year. As a matter of fact one could not grow this amount every year, for as soon as the plant food began to be short, the yields would grow smaller. But these figures teach a lesson. That is, there is a limit to the plant food in the soil. It also shows the relative importance of these three elements which are likely to become deficient. It shows that potassium is not very important in a consideration of fertilizers in normal soils.

If these first two elements are liable to become scarce, the question arises, how can the farmer farm so that he can maintain these plant foods and

practise a profitable business? How can he apply them to the soil when they become deficient? All may be bought in forms of commercial fertilizers but they are very expensive, and probably can never be purchased for general farming in this state. If bought in this form nitrogen will cost about 16 cents per pound, phosphorus 12 cents and potassium 6 cents. This means that the farmer would have to apply about \$9 to the soil to grow twenty-five bushels of wheat. It also means that every time he hauls a grain tank of wheat to town holding 125 bushels he takes about \$28.40 worth of nitrogen and \$3.60 of phosphorus, or \$30 in the two besides potassium.

The farmer can, however, conserve these elements to a very large extent by being careful to plow under all crop residues such as straw, stubble, and barnyard manures. In other words, the prevalent practice of burning straw and stubble must be stopped, and manure must be applied to the soil. Instead of buying nitrogen he can grow it on his farm, often for nothing.

While the soil has only a small amount of this element the air is made up of 75 per cent of it. There is enough over each acre to grow maximum crops for thousands of years. But most plants cannot make use of this free nitrogen; they will starve for the want of it while their leaves are bathed in it. However, there are very small microscopic plants which live upon the roots of a family of plants called legumes, such as red clover, alfalfa, peas and beans. These minute plants are called bacteria; they have the power of extracting the free nitrogen from the air and making use of it, in so doing they make it available to the plants upon which they grow as well as other plants which may grow on this soil.

If red clover and field peas are grown and the plants plowed under the nitrogen content can be kept up. Alfalfa is also a splendid plant for this purpose. Not only does the farmer keep up some of these plant foods by plowing under crop residues and legume plants, but he also keeps up the humus material of the soil which is exceedingly important. The humus, partially decayed animal and plant matter, aids very materially in retaining moisture in the soil and keeps the ground in good physical condition. When the straw and stubble are burned and manure is allowed to decay in the heap, nitrogen is driven off into the air in the form of a gas, and is lost to the soil. A ton of average wheat straw is worth \$2.50 in plant food, a ton of oats straw \$3.35 when threshed, most of which is lost when it is burned.

Unlike nitrogen, phosphorus cannot be grown on the farm. When the soils of the state become deficient in this element it will have to be purchased in commercial form and applied as it is applied in the older sections of our country. The farmer can, however, conserve the supply he has by the methods already mentioned; also by selling less grain and feeding more of it on the farm, returning the wastes to the soil. But phosphorus is sold in quantities when live stock is sold, for it is one of the main constituents of the bones of animals.

There are other very interesting and just as important lessons one ought to teach concerning the feeding and general care of our domestic animals,

the possibilities of pure bred stock raising and the possibilities in poultry. The more important questions of dairying should be considered. The Babcock test should be taught and its value noted. This test is valuable in that there is a large variation in the power of milk and butter fat production of different individual dairy cows. For example, at one of our neighboring state experiment stations, two cows were brought from the same herd and fed on exactly the same feed. One of these produced on an average for 12 years 7,258 pounds of milk, and 360 pounds of butter fat, while the other produced 4,951 and 158 pounds respectively, on an 8 year average. The first made an average annual profit of \$34.50, while the other lacked \$5.62 of paying for her board. Some might think these two cows were exceptions. But in this same state, out of 36 different dairy herds 554 cows were tested. The poorest one-fourth of these cows produced 133 pounds of butter fat while the best one-fourth produced 301 pounds, during the same time. Each cow of the poorest one-fourth made a yearly profit of 77 cents, while each cow of the best made \$31.32 as a yearly profit. It would take 1,021 cows of the poorest one-fourth to make as much profit as twenty-five of the best. These facts show the great variation in dairy cows and it is only by the scales and the Babcock tester that these differences can accurately be found out.

The teacher must become familiar with these facts. In order to do this he must get in touch with the best text books on the subject and become acquainted with the literature sent out by our agricultural college and the United States Department of Agriculture at Washington.

To sum up let every teacher believe this work is worth while, teach the science as far as possible and stick to the essentials.

ATTENDANCE.

ANNA INWOOD, ARENA.

In discussing the subject of attendance, let us first take up the causes of non-attendance and then try to apply a few simple remedies. First, let us ask ourselves the question, "Why are our pupils absent?" and "Are the absences unavoidable or not?"

We all get excuses galore: "Mary had to stay home to mind the baby;" "Willie had a hole in his shoe;" "Jimmie had a sore thumb." But how many of such excuses are reasonable and legitimate excuses. And how many are made simply for the sake of an excuse when the real cause of the absence may lie in the fact that neither pupil nor parents are truly interested in school?

And again who is to act as judge in deciding upon the reasonableness of excuses for absences? Perhaps a live, conscientious teacher could render a wise decision in this case.

But to enumerate the causes for absences, let us give as the first and perhaps the worst the pupil's lack of interest in school. But let us go a little farther and ask why the pupil is not interested in school. And I think you will all agree with me that in the majority of cases when the pupil lacks interest the teacher also lacks interest.

This may seem rather an appalling statement, but we must tell the whole truth and nothing but the truth in handling this important subject.

In Dinsmores' "Teaching a District School" we read that the causes of tardiness are applicable to much of the irregularity of attendance. These he gives as laziness, thoughtlessness and bad judgment.

To correct the lazy habit he suggests that laziness be taken as a subject for a general talk. "A lazy boy makes a lazy man as surely as a crooked sapling makes a crooked tree." Prof. Dinsmore recalls the impression this sentence made on him as a lad and would have us continue to make use of such antidotes.

We might, for instance, have some pupil commit and recite the poem "Doing Nothing," which concludes with the line, "Nothing boys are mostly naughty."

Then again some parents are thoughtless and attach too little importance to a well-regulated life. They seem to think that one day more or less out of a week or month has little bearing on the pupil's later success in life. Or perhaps the majority of such parents fail to give the subject a thought at all. And right here is where the live teacher will have to do some thinking for others. He should attempt in every way possible to show both pupil and parents how important is the matter of regular attendance.

He might have a parents' meeting at the opening of school and impress the parents at the outset with his earnestness in this direction. He should hold both pupils and parents to a strict account of their obligations and

then as Prof. Dinsmore says, "he will have a clear conscience and his pupils will rise up and call him blessed."

Then we might mention as another cause of absences "bad judgment" on the part of parents. This is also mentioned by Prof. Dinsmore. Many a parent keeps a child home to work, not realizing that his child's future usefulness depends largely upon regular attendance. He doesn't seem to comprehend the fact that each day lost is a missing link which can never be replaced. But the sad part of it is that the children are the ones to suffer the loss and in later life they censure their parents for this same "bad judgment."

Here again the teacher needs to attempt to correct the deficiencies and bring about a reform, if possible. He can perhaps influence the parent thru the child. He might read a story or two to illustrate the consequences of lost time. If none are handy he should improvise some. For instance, it would take little originality to manufacture a story about two boys, Tom and Will perhaps, who went to the same district school. Tom's parents kept him home half of the time forsooth, while Will's insisted on regular attendance. Then conclude the story by contrasting the future usefulness, and the social and financial standing of Thomas and William as men.

The teacher should express deep regret over each absence and if the excuses given do not sound genuine he should visit the home of the delinquent and be kindly solicitous for the child's educational welfare. In this way the parents may become aroused themselves. To be sure, parents like teachers, are prone to fall into ruts and consequently they, too, need some outside influence, brought to bear to stimulate new ideas and loftier ideals.

'Tis true we have a school law in regard to attendance which teachers and school officers can resort to if parents are too indifferent about the matter.

But we must remember to be charitable and make use of the proverbial grain of common sense, before attempting to enforce the law. Otherwise we might commit a graver offense than did the one we sought to punish.

For instance, perhaps Farmer Jones has potatoes to dig, flax to harvest, et cetera, and the only assistant available is his 13 year old son. Shall we in this case adhere strictly to the letter of the law and cast aside the greater and higher law embodied in the golden rule? No, we would always do well to live and let live.

But it is for the teacher to make the best of a bad matter and not make the affair still worse by showing a lack of tact and good judgment. He should make frequent visits to the home of the said Farmer Jones, show an interest in the family's welfare and upon his departure express a desire to have the son enter school at the earliest date possible.

Then when the boy does enter school the teacher should have him make every effort to regain lost ground, giving him extra help and encouragement whenever time permits. And in the majority of cases the boy will appreciate the interest shown and will be greatly stimulated thereby. The

parents moreover will catch the contagion, for enthusiasm is contagious, and will strive to have the boy's attendance record clear thereafter.

But as I said at the outset perhaps the worst cause for absences is the pupil's lack of interest in school, and for this the teacher is largely, if not wholly responsible.

More than likely she has not made the schoolroom a very alluring spot. Perhaps she isn't of English descent but is conservative, nevertheless and seems loath to make the slightest change about the school premises. Most of the text books she continues to use should have been condemned and committed to the flames long ago. The leaves are so dishevelled that it would take a lawyer to figure out where the lesson ought to be. And as she always says, "Take the next page," without further ceremony, many times no two pupils in a class are assigned the same lesson.

Then again the mural decorations have become fixtures. Some of the scrap pictures that that crazy Miss J. tacked up four years ago remain there as if glued with gutta percha. The very sight of them recall unpleasant reminiscences of that queer, queer teacher that had so much trouble. The windows seem to be made of stained glass save where an occasional pane is missing altogether. Many of the seats could be economically used for kindling. And indeed it would be economy to grant the teacher a pension and have her put on the retired list. For she is as uninteresting as the school-room she has charge of. See her enter the school room, untidy and unbecomingly dressed, with dishevelled hair in the early morning. Note her smileless face and her lack of concern for the young hearts famishing for a hearty "good morning."

Follow her thru a portion of the day if it does not become too oppressive and she will make you think she has a mill-stone about her neck and that the duties of a pedagogue are nothing short of drudgery.

Who of you thinks he would be martyr enough to strive to get his full quota of perfect attendance slips if enrolled in such a school? But there are teachers and teachers, and now let us take a glimpse into the school room of a live, conscientious teacher.

See her beaming countenance as she greets the children in the morning. Observe her becoming but unattractive apparel. Note the keen interest she takes in each pupil. Remain a while and listen to her program of morning exercises. There seems to be some dynamic power in operation somewhere. You wish you had brought your dinner. You remain for some of the classes. Each class seems more interesting than the preceding one. You would like to have a chance to scan over the splendid decorations about the room if you were not so busy listening. It is recess time before you know it. You feel it is poor taste to prolong your visit and yet you are loath to go. The words "Make me a child again" flit across your mind. But you must be off, and giving one last envying glance at the merry group of youngsters you bid their teacher good bye and pass on. Such is the ideal school in practical operation. Such is the school that will obtain the best results in attendance.

If the school room is made attractive in this way the non-attendance

list will be reduced to the minimum, for both parents and pupils will feel that a day missed at school is a real loss and will unite their efforts in striving to make perfect attendance a demonstrated possibility.

HOW TO TEACH FOREIGN CHILDREN.

MAYME DE ZYCHLINSKI, MANDAN.

It is now a well accepted fact that the best way to teach a foreign language to the native, or the native language to the foreigner is by the "natural method," so called, because similar to the one which a child naturally follows in learning his own language.

A child learns to talk by talking about the things around him; he learns the names of things and of people; he sees what is done with things and soon learns the words that tells what they do; he does not so quickly learn to join his words together into complete statements, or in the old-fashioned way of expressing it, to talk "joining hands;" neither does a foreigner who is acquiring the native language merely from hearing it spoken, learn so quickly to make statements as he learns names alone. In fact his vocabulary for a long time may consist mostly of names, the names of persons, of things and of actions.

The teaching both of a foreigner and of a native child to speak and read should follow the child's natural method in making use of objects; but, unlike that method, should not confine itself to names but begin at once to employ complete statements.

As children are usually quick to pick up a new language,—much quicker, indeed, than a grown person, there seems to be no reason why those that are foreign-born should not be placed side by side with those of native birth in the first grades of school. That is to say, if foreign and native children are both beginning the school course, the former are likely to be able to keep pace with the latter from the first grade, but, if the foreigners are too old in years to enter the first grade yet have no knowledge of the English language, the first grade is the place for them, while learning the language, even if they have been in school in their own country; for as soon as they can speak and understand English they may be placed wherever they belong.

In a large boarding school near New York City there used to be for a number of years many Spanish students, from the West Indies, Mexico and Central America, even from South America. These boys on entering school were first placed under a language teacher who taught them English until they were able to enter the classes to which they were fitted, for some of them were more advanced than others. This did not take long, from a few weeks to a term at most, depending upon the capacity of the students and the help they had in learning English from association with the other boys at play and otherwise; and when once taken into the English classes, these boys made rapid progress, in many cases greater than that of the American pupil. What was true of these Spanish boys would be found true to a greater or less degree of foreign-born children of any nativity. Their acquiring a knowledge of English enough to be graded with our own children is, therefore, only a matter of time.

As to the way this method is put into practice, it is, of course, unnecessary

to say that the "natural method" is not the Alphabetic method; on the contrary, it is similar in effect to the sentence or thought method of teaching reading. The natural method should begin informally as does the other: it may begin with a talk about some object, as a book, a chair, a pencil, or something the teacher has brought for this purpose, as a ball, a basket, a doll or anything that would lead them to talk. But, although an *object* which the children can observe and talk about in familiar words while the teacher leads them to express these in simple statements to be written on the board, is best for the beginning lessons of English speaking children, it is better in case of the foreign-born to begin with words expressing *action*.

The following list of words expressing action is taken from Lesson I in a new Reader "adapted for foreigners," according to the system used in teaching reading to beginners in the schools of the city of Erie, Pa., where it has been successfully used for the last twelve years and over. These words are to be learned by action, then by sight from the board.

With this first list of action words, but two pronouns are used as subjects, You and I. The teacher or the pupil first performs the action stating what he does, then stating what the other does when he acts: as, I run. you run; I walk, you walk, and so on using the words: stand, sit, jump, laugh, cry, sing, eat, sleep, write, read, work and talk,—fourteen in all, which, if found too many for practical use in the first lesson, need not all be used at first, as the second lesson is upon the same words taught as before but with different subjects, such as She He, etc.

After sufficient drill upon these words taught by the use of the black-board, the next words taken may be taught by both action and objects, as: This is John. He has a book. He has a pencil, etc. This is Mary. She has a book. She has a pencil, etc., using the pronouns I, You and others. For a dozen lessons more or less, the material is simply new words taught by action and objects, the work being continued until the pupils are able to understand more words and longer statements or to enter more into conversational lessons.

As with English speaking children of the present who are taught from the beginning to read, write, and spell all at the same time, so it may be with the foreign-born, whether they are entering our schools for their very first instruction or have already been taught in their home schools. Because children are so quick in acquiring a new language, the foreign-born child cannot be long in this country, or in our schools, without understanding our language even if their parents are slow to learn it. For this reason we may take it for granted that they will be able to read from the board, from the chart or from the primer, as quickly and as readily as our native children read the same. They will also learn to spell and write with the same readiness: since this is the case, is there any reason why they should not take all other work suited to their grade?

All the number work and arithmetic of their grade, they can certainly take as understandingly and thoroughly as any of the American children. They may be taught as early as the native child the use of capitals and punctuations and the correct forms of sentences.

By the aid of pictures and the ability of the teacher to hold their attention

and interest, through story telling, they may learn some matters of history and travel or biographies of noted men the same as American children. It is the same with other subjects of the two first grades with the informal introductory lessons in history, geography, natural science and especially drawing. As for the more important uses of morals, civics and the duties of citizenship, there is surely need that the foreign-born child should acquire as early as possible all of that kind of knowledge suited to his years; but he has no more need of acquiring and no less ability to acquire such knowledge than have our native children of corresponding years of age and corresponding grades in school.

RURAL PROBLEMS.

ANNA O. GJELSTAD, VELVA.

The one who placed me on the program must have taken me for one of the oldest teachers of our country schools and hence very likely expects a "ten minutes treat," but if such is the case, I am sure you will be greatly disappointed. I am not blessed with that gift which would enable me to contribute a thing of worth and value. So I shall not attempt to set forth any new ideas but as I have been a teacher of the rural schools of North Dakota for the past fourteen years, I have become greatly interested in said schools and shall endeavor to set forth certain conditions which I have at heart.

As I think of the progress that has been made in our country schools during these years I cannot help but remember certain conditions that existed when I attended our district school in a little log schoolhouse. The teacher thought more about the many articles of fancy work that she finished during the term than about the welfare of the children. Oh no, not all of them but others had very little knowledge of the texts and again others were (plainly speaking) lazy. What were not the discouragements of a fifteen year old girl who yearned for learning and a preparation that would enable her to enter the ranks of the teachers. Then came an energetic teacher, Miss Egge, now Mrs. Case, Postmistress of Bantry, and I shall never forget her. That was the beginning. The following winter I attended school at Towner under Miss McNaughton, now Mrs. Stevens our president and she has been my teacher ever since, but I wish to assure you, that she is not to be blamed for my shortcomings. Two years later I opened my first term of school (never to be forgotten day) and resolved that I should strive to do more for the country children than had been done for me while I was in the rural schools. With this resolution always in mind I have worked on with a will, and the recollection of my own school days in the country has caused me to take the greatest interest in the rural schools, and if I ever give up teaching in the country it will be because old age finds it too strenuous. How I rejoice over the progress that has been made for the improvement of said schools. And here we are indebted to our state and county superintendents and leading educators of the state. But yet there is much to be done. And there is an endless list of conditions that falls alone on the rural teacher to remedy, and each of these conditions you must endeavor to improve. Is it not in the country that you find the most foreigners whom it is your duty to Americanize, that you find children coming from homes where little or no reading is done, where the yard instead of being beautified with shrubs and flowers contain all kinds of rubbish, where the house itself is a shameful sight and where the children have little enjoyment but have to witness the steady toiling of their parents, for how many of the farmers think of naught but to earn and to save. And how often do we not find that the little ones help until their backs are bent and their eyes hollow. Then remember that "Thou shalt enrich

THE IDEAL TEACHER.

BESSIE M. KANE, STANLEY.

Fleming tells us that, "the ideal" is to be obtained by selecting and assembling in one whole all the beauties and perfections which are usually found in different individuals, excluding everything defective or unseemly so as to form a type or model of the species." Thus it is that many young teachers honestly endeavoring to become the ideal teacher, have with the hero worship characteristic of young people during their Normal or University career, tried to incorporate into their own being all the excellencies of each different professor under whose tuition they have come, only to acknowledge after many years of effort how far short they have fallen of becoming what they had hoped.

Hence the purpose of this paper—not only to encourage teachers to have an ideal but to assist them in creating an ideal that is a true one for here lies the chief cause of failure, youth clothes its ideals with attributes which viewed in the light of more matured judgment, were desirable enough but not fundamental thereby creating a false ideal.

What then do you ask are the essential attributes of the ideal teacher? A very commonplace scene will serve to suggest one of the most necessary—a mother bidding her child "good-bye" on the first morning of its school life. What person that has witnessed that passionate, clinging embrace and seen the moist eye and trembling lip of the mother as, turning from the last glimpse of the little form, she sought her chamber there to pour out to the Great Comforter all the loneliness of her heart and implore the Divine protection for her darling through the long years during which a large part of her child's life is committed to the direction of another but will say that that other should be able to give the child the same place in her heart that he has held in his mother's. Therefore, the first great essential of the ideal teacher is the power to love which after all is the greatest attribute of any human being. It is the motive power that impels to every good, the influence that prompts every measure that works toward the uplift of humanity. God, Himself, says, "love is the fulfilling of the law." So the teacher above all persons must possess this almost divine characteristic in a supreme degree, for not only must she be able to take into her heart the child we have just been considering but that other less fortunate child who will receive from her the only mother love he will ever know. It is in the degree that she possesses the power to love that her success will be largely measured for it will be the basis of that sympathy that enables her to feel all that the little shortcomings of children are only manifestations of thoughtlessness rather than viciousness. It establishes friendly relations with parents that means so much to the successful school. It is also the one attribute that will extend the teacher's influence to the community surrounding the school and make her a force for good.

This leads to another essential of the ideal teacher—a realization of the dignity and opportunity of the teaching profession. This characteristic is

the incentive to all the effort the teacher puts forth to secure that broad and liberal education that will properly prepare her for so responsible and exacting a calling. It also prompts her to that continual study that keeps her knowledge fresh and available for daily inspiration of her pupils.

How easy then it is to see how far short of the ideal falls the teacher who for the mere sake of an occupation essays to teach without having had any special preparation for so great a work or who fails to make use of the many opportunities of self improvement afforded by literature, magazines, association meetings and the like for keeping in touch with the latest ideas in regard to educational progress.

The time was when the realm of the school master's effort only extended to the teaching of a few definite subjects but gradually that extended to the highest development of the individual but now the limit of education recognizes no less a bound than to produce not only a perfect individual but a perfect social being which means that the teacher must know not only the possibility of the individual but the necessities of present day society all of which calls for a wide culture—impossible to anyone who has not had quite a broad range of cultivation. This does not mean that the teacher must be a University graduate or even a Normal graduate though other things being equal these will be the better teachers, but it does mean that however or wherever, by tuition or experience, culture comes it must be broad and deep, capable of always stimulating to greater ambition the pupils that come in contact with the one possessing it.

The third essential of the ideal teacher is a conception of the possibilities of her pupil. Only the teacher that can look away and beyond what the child is when he comes to her and see him as he may be when life's span has been reached has any claim to being the ideal one. Rather has she that right who can with true prophetic vision exclaim,

"Who can declare for what high cause
This darling of the gods was born."

It makes no difference to the ideal teacher whether her pupils come from the homes of wealth and culture or the most baneful environment, she sees in everyone the possibility of a life replete with usefulness and redolent with goodness. Just as she sees a pure white lily spring from a filthy compost, she sees these budding lives expand to their full flower, and aids in the miracle just as the wise gardener does in furnishing the proper cultivation of their native powers. The age is rapidly passing when teachers try to mould every pupil to the same model. An era of individuality of development is opening up. She feels that all the great men and women are not in history and from the confines of her little school may go out some one who will have as great problems to solve as any that have been solved and who must be equipped for the task.

Too many teachers fail of their highest achievement for the very reason that they are not cognizant of the fact that boys and girls are going out of our schools today that will do greater things than the world has ever known in the past, and that these boys and girls will do these things because their native genius was guided aright by some wise teacher.

This was the quality that inspired Edward R. Sheldon to leave his luc-

rative nursery business back in 1848 to become the teacher of 120 little foreign boys who were dropped down in the city of Oswego at that time rather than see their latent talent and genius lost to this country.

This then is the prerogative of the teacher more than of anyone else save the minister, to open to the young the vista of possibilities they may attain and to point them to the way of their certain achievement. This we are told is the greatest service to humanity—to help others to help themselves.

The last essential of the ideal teacher is an upright life adorned by every virtue that she desires to see reflected in the lives of her pupils for as surely as a lake reflects the lily that reposes on its bosom do one's pupils reflect the teacher's characteristics. The greatest teachers teach by example more than by precept. Industry finds its greatest champion in the teacher who is always known to be usefully employed and whose busy life is a constant reproach to sloth, while purity, sobriety, and truthfulness insensibly impressed upon a child by being daily brought in contact with the possessor of these admirable virtues soon become part and parcel of his life.

These then are the requisites of the ideal teacher, all of them equally important and necessary.

But someone asks if religion is not the essential to the ideal teacher—it would seem that the possession of the qualities mentioned would presume a Christian for first under the Christian dispensation was exemplified the ideal teacher, who after all was none other than The Divine Teacher. It was in Him that the power to love shone, in the highest degree for did He not say "Suffer little children to come unto me" not for natural love that delights in the soft cheeks, dimpled arms, and curly heads nestling close, but that He might give them His blessing. So must the ideal teacher love children not out of a natural love which is attracted by the attractive and repelled by the unloveable but because she like Him can give them what is most helpful to them.

So also does she find warrant in His life for the great preparation required for the vocation—did not Jesus spend the first thirty years of His life preparing for His three years of teaching and is not the story of His career full of incidents where He was pointing to a higher life and a broader outlook.

Lastly The Divine Teacher is the best pattern for that upright life which was spoken of and he not only shows the example but utters the terrible warning about the curse of scandalizing "one of these little ones."

But yet many teachers are worried because no stress has been laid upon good order, discipline, and the many other things that are usually considered necessary to the good teacher. Believe me, these things are incidental to and resultant from those already mentioned. Can you imagine a child so perverse that can long withstand the all pervading love that we have described, or fail to respect the erudition of a really scholarly teacher. Even a child's immature judgment will suggest to him that such a teacher is able to give him too much for him to be belligerent in such a presence. So also is enthusiasm infectious and faith begets confidence. If this talk were not already too long examples might be multiplied going to show

how many a brilliant career had its beginning in the inception of the thought, "My teacher thinks I can do something worth while."

Then, dear teacher, preserve your ideal because it has been said that, "In the striving after an ideal man finds that which makes him like unto the gods." But reconstruct your ideal to embody these excellent characteristics and when discouraged turn to the story of The Great Teacher for new inspiration and encouragement.

HOW TO GET CHILDREN INTO SCHOOL.

MARTHA REISNER, MANDAN.

This is one of the most difficult problems in rural teachers' work; one that requires forethought, tact, patience, and perseverance.

Teachers magazines do not help us as the most of these have only to do with the work in graded schools, and we can get only the fragments from which to build our methods.

The grade teacher can go to the superintendent for help in every difficulty, but we stand alone. Of course we can go to the county superintendent and he will always come to our aid and help us with his advice; tho some of us delight in making our work a success by our own efforts.

Different teachers use different methods I presume, but I can only tell of my own efforts along this line, and I have never yet failed in having good attendance.

I generally go to my work a week or at least a few days before school opens, so as to get settled and ready for work. My first visit is to the school house in order to see what is needed to better conditions there.

I wonder how many teachers realize that they leave the index to their characters in the school room. The next teacher can generally tell something about us by the condition of the school house. I have seen the walls of one school room covered with the pictures to be found only in the sensational yellow journals. I am afraid my idea of that teacher's character didn't reach a very high standard.

I think no parent of refinement would care to see such decorations, and the sooner they are removed the better for the children.

We can get good pictures for a few cents so we can surely make the school-room show some refinement and beauty. Do you notice how quick children are to see a change and how eager they are to help make things look nice; and how proud they are to tell the home folks of the change in the school house.

Be at school house at good time in the morning and give each pupil a pleasant greeting. Smiles and pleasant words do not cost much effort and see how it pleases the little ones, and how quick they are to respond.

Teachers do not show partiality. It is easy I know to pet the little 'tot' in long curls and dainty dress. How about the boy in the patched faded overalls and calico blouse much the worse for wear. Is it easy to pet him? It is in just such cases as this that some teachers fail. Remember underneath that worn blouse beats a heart that will open to kindness and love, but which will become bitter and estranged by neglect. If you wish to keep the little patched fellow in school treat him as you do the others. Do not think for a moment that he wishes to wear clothes handed down from the older ones that have out grown them.

I find in my work that the most absences occur among the families that have money to hire help but are too saving to do so. The father thinks he cannot afford to hire a man, so he takes his boys or even his girls out

of school, to work in the field. If one child is not strong enough to do the work, he takes out two.

I go to the parents and have a talk with them, insist that they should send the children, tell them how much their children will lose by missing just at that time and how impossible it will be to keep up with the class, and urge them to send them. I find in most cases parents will listen to reason and allow their children to come if you can make them understand how much they are losing and that you are interested in their children. I have heard teachers, who were glad if the pupils were absent. I am never so happy in my work if some of the pupils are missing.

We have the law to help us get the children into school but I never would go to that extreme unless I failed in every other way. I am confident that some would only send them as long as they were compelled and they would make it very unpleasant for the teacher during the time.

I realize that it is almost impossible for a teacher to succeed in some districts; for instance among the foreign element. I know it has been to my advantage to be able to speak several languages. I do not think a teacher could succeed in getting the children into school or to keep them there if she is unable to talk with her patrons or at least understand them.

I have had the best success in overcoming the desire to remain at home or to be just a little late, by having five or ten minute talks in the morning or during the day. When the time is up I tell them: "I will finish this tomorrow." No fear of having them absent or tardy on the morrow unless absolutely necessary.

One of my pupils had been to town and had seen a Chinaman. He was very much excited about this strange appearing man. He asked numberless questions about him, I saw he had succeeded in arousing an intense interest among the others. I had visited Chinatown in Portland and also had a friend that had lived in China for five years who had told me a great deal about their manners and customs. Need I add I had enough material to keep the pupils interested, especially the little fellow that had seen a Chinaman? I admit I have the advantage of the teacher who has not seen nearly all of these grand states of ours. I find this a great help in my work. It is easy to explain things you have seen as well as read about.

My advice to rural teachers is, get your pupils interested in their work and above all things be interested yourself. Don't depend on the text book the pupil has. He can read all that is to be found there, but bring something new on the subject to class. If you don't think it pays just try it. I know it costs a great deal of outside work and time, but it pays, not only to the pupils but to yourself. You can't read novels or do fancy work in the schoolroom if you want to make your work a success.

My nephew told me he hated to go to school and when I asked him why, he answered: "The teacher never pays any attention to us but just does fancy work all day long and when we ask for help she gets cross and tells us not to bother her as she can't count stitches and watch us at the same time." Poor neglected children to have such a monotonous time in school. Do you think it would take much of an excuse to cause those pupils to remain at home?

Last winter I kept three boys very much interested and prompt in attendance by having a class in agriculture. Sometimes we began school at eight-thirty and many times it was four before these three were ready to go home. We had to find time for our experiments. I never had any recesses during the winter months, we were busy all day only an hour for noon. I did not suggest doing without the play time, my pupils wished to use the time for study.

I was very much afraid there would be a falling off in attendance in spite of all I could do, on account of poor fuel. Many times during the winter I had them take gymnastic exercises to keep warm. Only one dropped out of school on account of the cold. I felt I had not been to blame for that for I could not get better fuel.

Keep the schoolhouse and yourself in order. Be neat and urge the children to be the same. My pupils and I scrubbed the schoolhouse five times in seven months. We didn't expect any pay for doing this but we were well paid by the changed appearance of the room.

Last but not least, be careful of your actions after school hours. So many teachers lose the respect of their pupils and cause parents to distrust them by their own carelessness. Of course I suppose it is flattering to some to be popular? Draw the line somewhere this side of silliness and keep your good name and the love of patrons and pupils.

Win the respect of both pupils and parents; make your schoolroom a sunshiney, pleasant busy place to be and if you try faithfully, I am not a bit afraid you will have cause to feel your work is a failure.

'Do as you would be done by' and your pupils will love you and endeavor to please you in everything. Remember the children sent to your care will be men and women some day and train them to become honored men and women. Your example will have much to do with the moulding of their character, try to make it worth while and you will never regret the efforts it costs you.

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